MODERN PACKAGING

AN ORIGINAL OIL PAINTING FOR MODERN PACKAGING BY WALTER MURCH

GREAT PACKAGING DISCOVERIES: *The beer can—p. 92*

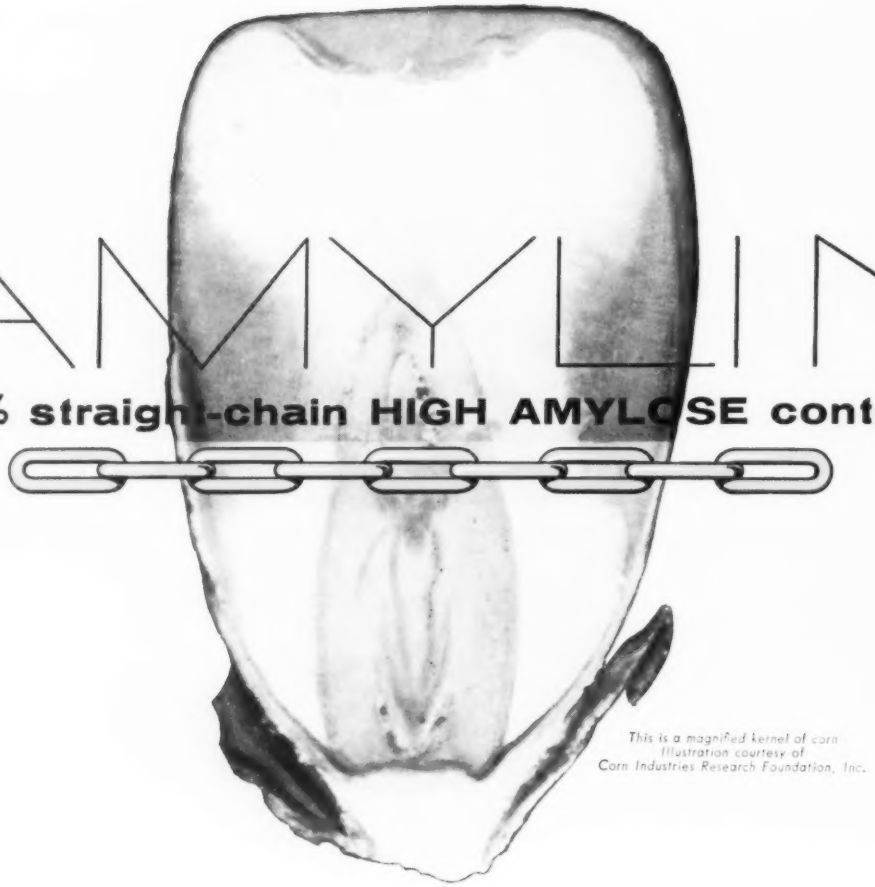
Sounding Board (Question of the Month), p. 59 | **NEW FEATURE:** *Cost Cutters, p. 102*

MAY 1959

Complete contents, pp. 2-3

AMYLIN

55% straight-chain HIGH AMYLOSE content



This is a magnified kernel of corn
Illustration courtesy of
Corn Industries Research Foundation, Inc.

A RADICAL GENETIC CHANGE

science and nature synthesize a new chemical polymer

NOW AVAILABLE in semi-commercial quantities. A radically altered natural starch polymer that contains 50-55% amylose —the straight-chain molecular component of starch.

This is the first major genetic advance leading to a potentially feasible starch containing 100% amylose. It's an exciting genetic achievement. Until now, the amylose content commonly available never exceeded 27%.

Geneticists have worked for many decades to develop special qualities in hybrid corn. Such as high yield, drought and insect resistance. A change in chemical structure was first accomplished industrially by the breeding of corn containing 100% amylopectin which NATIONAL introduced as AMIOCA in 1943. High amylose corn represents another major industrial accomplishment in the new area of plant breeding intended to alter the polymer structure of the starch itself which NATIONAL is introducing as AMYLIN®.

Milled from high amylose corn in the same way as ordinary starch, AMYLIN represents a marked step towards the unusual properties of amylose itself: Film formations, with greater strength than ordinary starch films. With improved water, grease and oil resistance. Flexibility. Unusually strong gels. Adhesiveness.

To the inquiring mind, these unusual properties suggest a variety of applications: Soluble and digestible packages for instant coffee, meats, vegetables, fish, fruit. Butter. Vegetable shortenings. Soluble packages for soap powders and insecticides. Grease and oil resistant coatings. Water and humidity resistant binders. Improved textile sizes and finishes, etc.

An invitation is extended to all who are interested in exploring the properties of this new high amylose starch.

Address: Amylin Starch Division, National Starch Products Inc., 750 Third Avenue, New York 17, N. Y.

National

STARCH PRODUCTS INC.

Packaging machine — Model CKP-2 (Patent Pending) — by Crompton & Knowles Packaging Corporation

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When it comes to packaging paper products, there is no transparent film on the market that does the job so well as Vitafilm.

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Snug wraps – strong, perfectly sealed, excellently transparent, dimensionally stable.

AND VITAFILM *doesn't attract dust* – always a real plus when merchandising containers for foodstuffs.

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Vitafilm by GOODYEAR

Vitafilm—a Polyvinyl chloride. T. M. The Goodyear Tire & Rubber Company, Akron, Ohio

The finest in sheer protection

MAY 1959 VOL. 32 NO. 9

IN THIS ISSUE

75 **Crisis: the new food law**
The sharp teeth behind the deceptively simple words of the New Food Additives Amendment to the Federal Food, Drug and Cosmetic Act are becoming evident to food packagers and suppliers. Basically, the amendment bans the use in food of untested additives, so packaging materials are involved because an additive is any substance that may become part of or affect food. The Food & Drug Administration will take a close look at *all* packaging materials, no matter how long they have been in use. Packagers are involved because they must now be responsible for testing packaging materials and getting clearance from F&DA. One result may be higher prices for key packaging materials. In this first article of a series, MODERN PACKAGING reveals the facts about the additives law and its implications. Next month: how to meet the regulations and who pays the costs.

79 **Self-measuring closure**
A convenience feature that can be adapted to good advantage by packagers in various product fields is the plastic dispenser cap for Maryland Club instant coffee that releases just enough of the product to make one cup. The dispenser-closure premium, which is molded of polystyrene with a polyethylene lid, was adopted as a defense against competitors' price-cutting, "cents-off" deals. Offering the attractive user bonus of no-waste measuring, it is reported to cost no more than such deals.
Special interest: foods, drugs, chemicals.

80 **Multiwall super-barrier**
A new paper-foil-polyethylene bulk carrier, heat sealed and taped on a new machine, gives excellent protection to a Du Pont molding polymer under tropical test conditions and opens new prospects to packagers of moisture-sensitive products. It appears to be the answer to a long-felt need by industrial packagers for a multiwall bag that provides the same impervious barrier to water vapor and other detrimental external conditions as do metal drums and cans, yet retains the characteristics of easy handling, filling and disposal.
Special interest: chemicals, foods, fertilizers.

82 **Glue flap that tucks back**
An experience by Durkee Famous Foods is proof again that a surface-design project, broadened to include analysis of an entire packaging program, can pay dividends in production economy and improved package utility. In addition to achieving sparkling new design, the company has (1) adopted a convenient folding carton that provides siftproof sealing, yet is easy to open and reclose in the home, (2) reduced the number of carton sizes for spices from four to one and (3) increased packaging speeds 500% via a high-speed carton-filling and sealing machine.
Special interest: foods, soaps, seeds.

85 **Rack-packaging dynamics**
Rack jobbers—the independent businessmen who keep thousands of supermarket non-food departments stocked with fast-moving, profitable items—know from long experience the factors that can make or break the sale. Their first-hand evaluations of packaging, reported in this article, are worth careful study by all packagers of self-selection products, but particularly by those who sell through rack jobbers.
Special interest: household goods, hardware, soft goods, supermarkets.

92 **The beer can**
A *Great Packaging Discovery*. From a few thousand cans in a 1935 test market, beer-can sales have grown to an annual volume of about nine billion, or more than 20% of the total number of cans that

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A new MODERN PACKAGING feature revealing techniques for reducing the costs of packaging.

MODERN PACKAGING, Executive and Editorial Offices, 575 Madison Ave., New York 22, N.Y. Phone PLaza 9-2710

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OF MODERN PACKAGING®

will be produced this year. Not only has the beer can opened up an entirely new approach to the merchandising of packaged beer, but it has also led to the development of today's aerosol industry, which would have been highly restricted without a disposable container strong enough to hold a high degree of internal pressure.

96 **Liquid-tight poly-coated carton**
Potential economies indicate a promising future in packaging for a new rectangular paper milk carton that is coated inside and out with tough, durable polyethylene. Adaptable to a wide variety of liquid products, it offers packagers and consumers alike the handy disposability of the conventional paper carton without the costly nuisance of leakage during distribution and use. And the great yield of the coating promises reduced packaging costs.

Special interest: dairy, foods, beverages.

104 **What you should know about lettering**
When next you are faced with a choice of package designs, the principles of creative typography discussed in this article may help you recognize the lettering that can best convey your message even though, as a packaging executive, you do not consider yourself an expert on design. Briefly, lettering should be relative to the product, appropriate to the market and symbolic of the company. Truly effective lettering must (1) read clearly, (2) convey a rational message, (3) use simple, restrained emphasis and (4) create the right emotional climate. The basic types of lettering and their connotations are illustrated. *By G. Mallet-Prevost, Jr.*

108 **Transfer labeling in the round**
A low-cost, quality decorating technique that should find applications throughout packaging has been adopted by Union Carbide for applying intricately designed wrap-around labels to round squeeze bottles at a speed of 65 per minute, increasing labeling speeds for oval containers by 35% and saving 16% in the cost of the package. These achievements are the results of two new machines that offer radically increased operating speeds and impart a gloss to the heat-transferred label that enables it to compete favorably with the more expensive silk-screened designs.

Special interest: chemicals, toiletries, cleansers.

TECHNICAL & ENGINEERING

111 **Antioxidant effect in boxboard**
Packagers of food products containing fatty elements should be interested in the results of recent experiments which prove that even such low-fat products as dry cereals can benefit significantly when the interior carton surface is treated with an antioxidant. Shelf-life tests were conducted (at room temperature and at 100 deg. F.) with control cereal packages made of untreated board and with cartons made of board pre-treated with butylated hydroxyanisole. Panel evaluations of aroma, flavor and general preference after 18 and 52 weeks indicate superior performance by the treated board. This study clearly demonstrates that application of an antioxidant agent to the packaging material can improve a product's stability during storage. *By E. F. Caldwell and Sylvia Shmigelsky.*

114 **Effect of wraps on frozen beef**
Significant comparisons as to the effectiveness of various packaging materials result from tests of these materials' performance in retaining the palatability of frozen ground beef and preventing weight loss in storage. Aluminum foil is found to score highest on palatability in medium-term storage, but polyethylene-coated paper is also effective. And both inhibit weight loss. *By J. D. Winter and Shirley R. Trantanella.*

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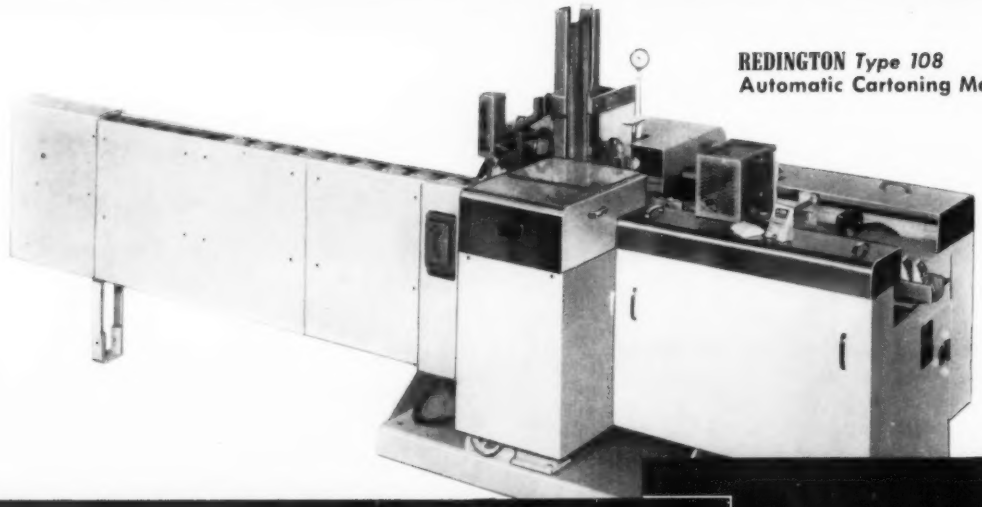

REDINGTON *Type 108*
Automatic Cartoning Machine

Are Your Packages *ODD-SHAPED?*

You can carton them *Automatically* with your REDINGTON . . .

Even the unusual wedge shape of these "Mouse-Prufe" packages does not prevent the d-CON Company, Inc. of New York from enjoying the speed and economy of fully automatic cartoning—because their REDINGTON *Type 108* handles the job with complete efficiency.

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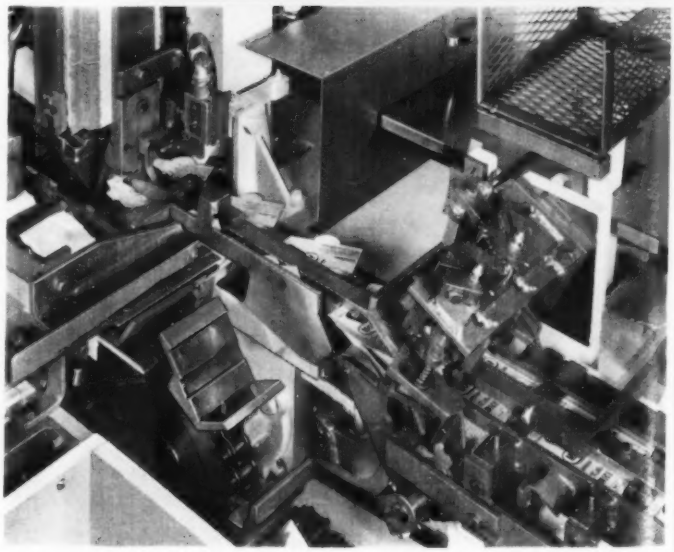

REDINGTON machines, with various modifications and special attachments, can be supplied to give efficient handling to packages of many sizes and shapes, with products of every description. Some of the largest packagers in the world, and many smaller companies as well, have long depended on REDINGTON equipment for practical, fast, economical production. Our engineers will be glad to put our more than six decades of experience to work in developing better cartoning for *you*. Why not call us?

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AUTOMATIC MACHINES for CARTONING
WRAPPING • SPECIAL PACKAGING

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Dobeckmun printing helps win shelf space and customer demand for Sunniland Nuts. Sunniland sells the whole product story, in words and pictures, visually and readably portrayed in Dobeckmun processed gravure.

DOBECKMUN

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Sutherland

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deep sides give added strength; choice of plain or knurled sides; flat-seating threads for sure seal

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best withstands live steam; won't stick to glass; easy to apply; stays put; vacuum-seals

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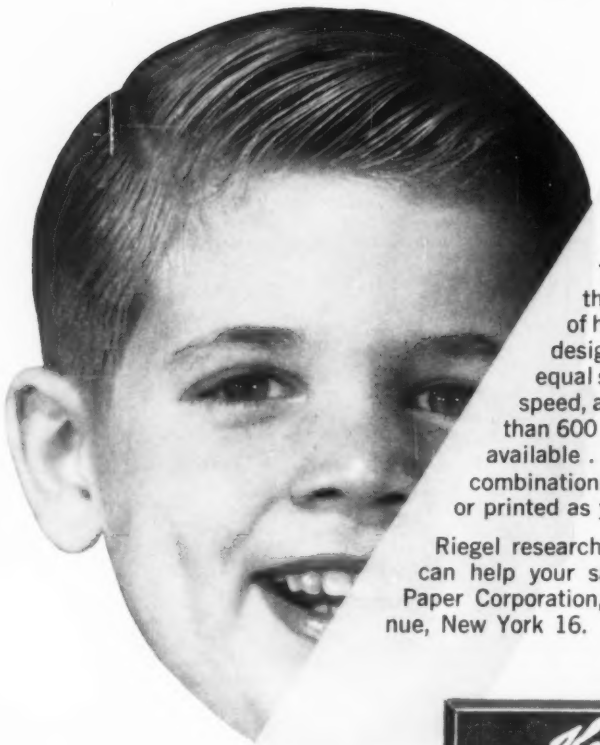

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This is Riegel's business: The research, the development, and the manufacture of highly technical packaging materials, designed first for protection . . . with equal stress on low cost, high packaging speed, and attractive appearance. More than 600 different Riegel materials now available . . . papers, foils, films and combinations . . . waxed, coated, plain or printed as your needs require.

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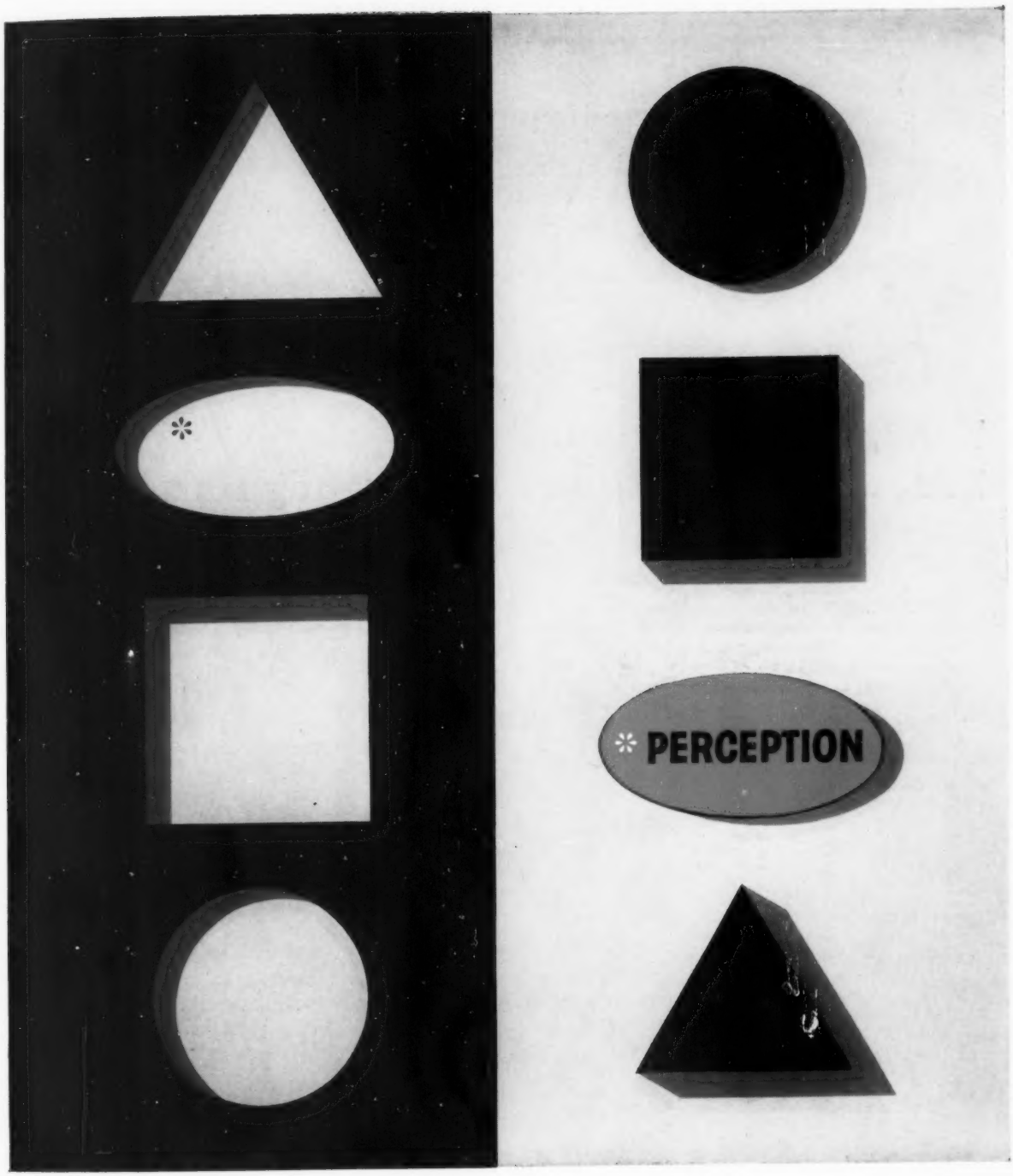

Without trying, one knows a square peg doesn't fit into a round hole. You perceive this. In the same way, the people at Canco have developed unusual perception in analyzing customers' packaging problems. They don't try all the wrong solutions to find the right one! This can save *you* time, trouble and money. That's why it's easy to perceive the advantages of calling your nearby Canco salesman. Let him tell you what alert, imaginative Canco service can do for your operation!

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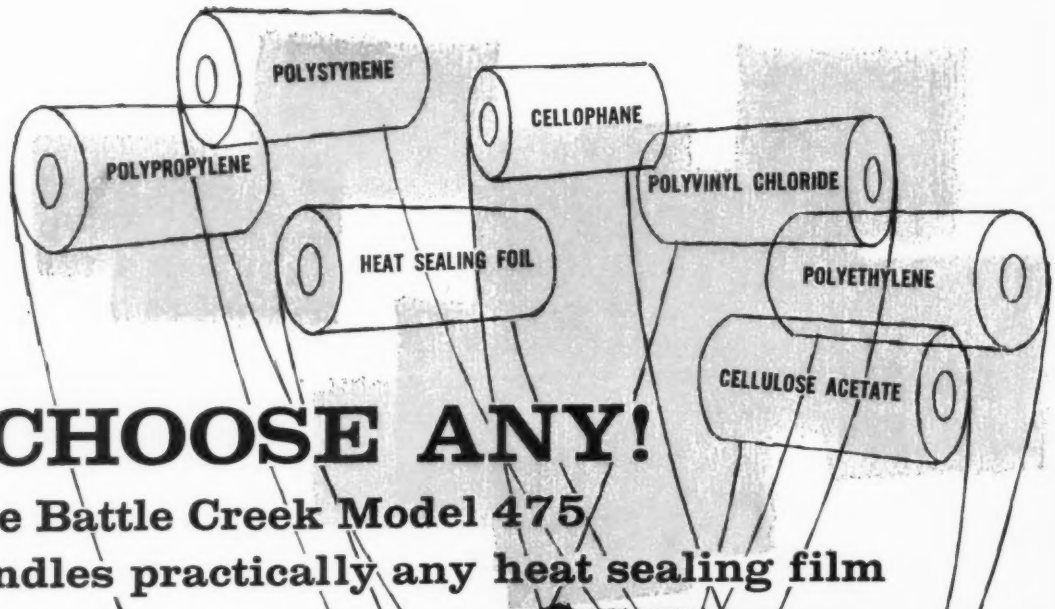

CHOOSE ANY!

The Battle Creek Model 475 handles practically any heat sealing film

PACKAGES LIKE THESE . . . now produced on former overwrapping machines can be efficiently handled by the Model 475— Typical applications: textile packages (underwear, handkerchiefs, pillow slips, etc.); paper products such as flat stationery, envelopes, napkins, bakery products, such as hot dog or hamburger buns, large cakes, specialty items; cartons; open top trays.

This truly all-purpose machine handles practically any heat sealing film over a wide range of products at production speeds up to 75 per minute. With the Model 475 you automatically anticipate future packaging opportunities offered by heat sealing films yet to be developed while enjoying the economies current films offer your packaging operation. The Model 475 wraps articles within the range of 5" to 12" lengths, 3" to 8½" widths and ¼" to 4" heights and sizes are converted easily within 15 minutes or less. A special 5" to 9" range is available for wider packages and for bundling purposes. Optional equipment is available if desired. An investment in the Model 475 is an investment in the future . . . its versatility will amaze you.

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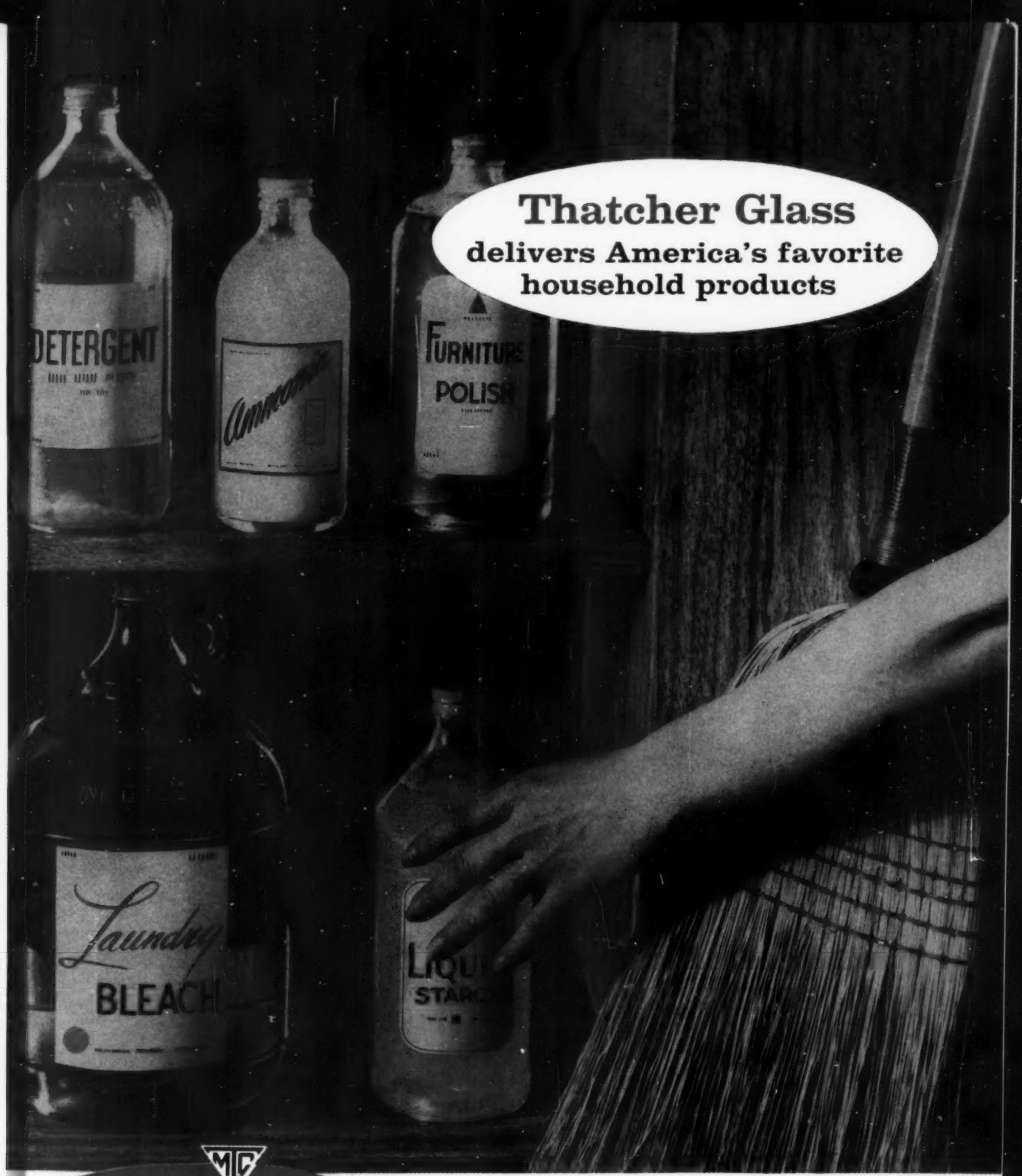

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The 27-year saga of Sunsweet Prunes in

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REYNOLDS ALUMINUM

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CALIFORNIA PRUNE & APRICOT GROWERS ASSN. • SAN JOSE, CALIF.
SUNSWEET
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PEACHES
TENDERIZED • THEY'RE PACKED BY THE GROWERS THEMSELVES
SUNSWEET
CALIFORNIA
mixed fruit
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APRICOTS
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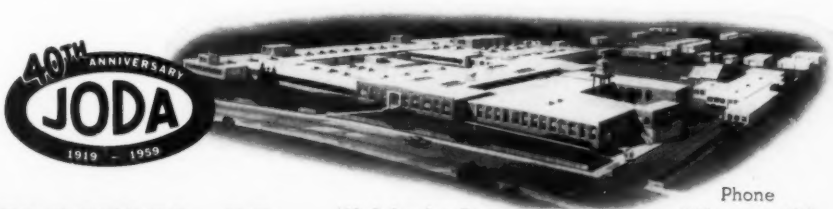

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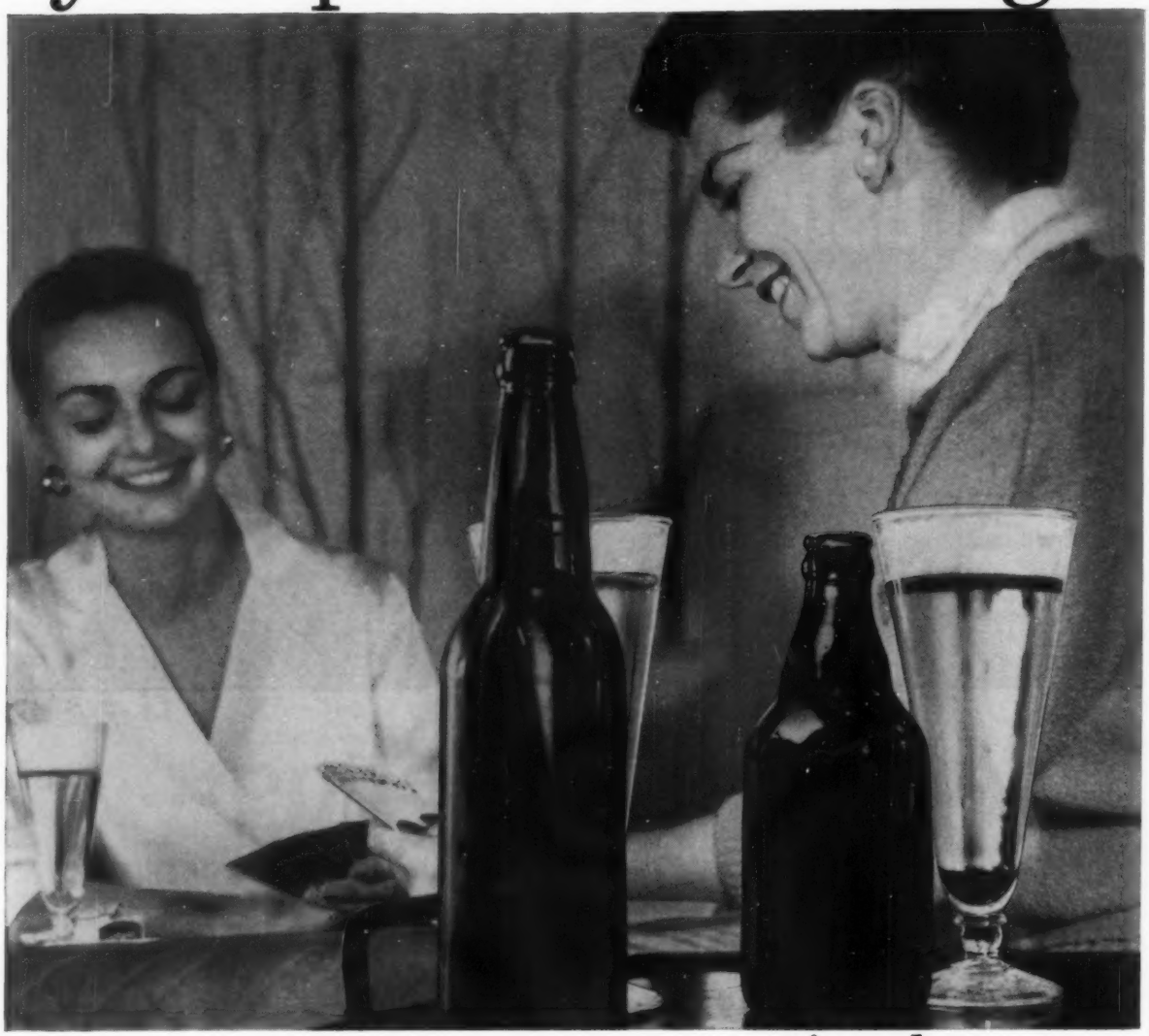

in glass by Brockway

"Beer Belongs" . . . in an attractive glass container by Brockway. • Like many products, beer belongs in a container which protects the product and, at the same time, presents it in full view for ready inspection. • Brockway glass containers are manufactured under rigid control so that you, the bottler, are assured smooth, uninterrupted performance on your bottling line. • A product that is worthy of consumer acceptance deserves a quality glass container by Brockway.

SYMBOL OF QUALITY · GLASS CONTAINERS ·

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COMPANY, INC., Brockway, Pennsylvania
Sales Offices in Principal Cities

JOYVA goes customer shopping in a Cellu-Craft suit

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Whether you market halvah or hairpins, hosiery or ham, you'll find that Cellu-Craft's engineering, designing and printing ingenuity helps you move mountains of merchandise. Just phone or write today.

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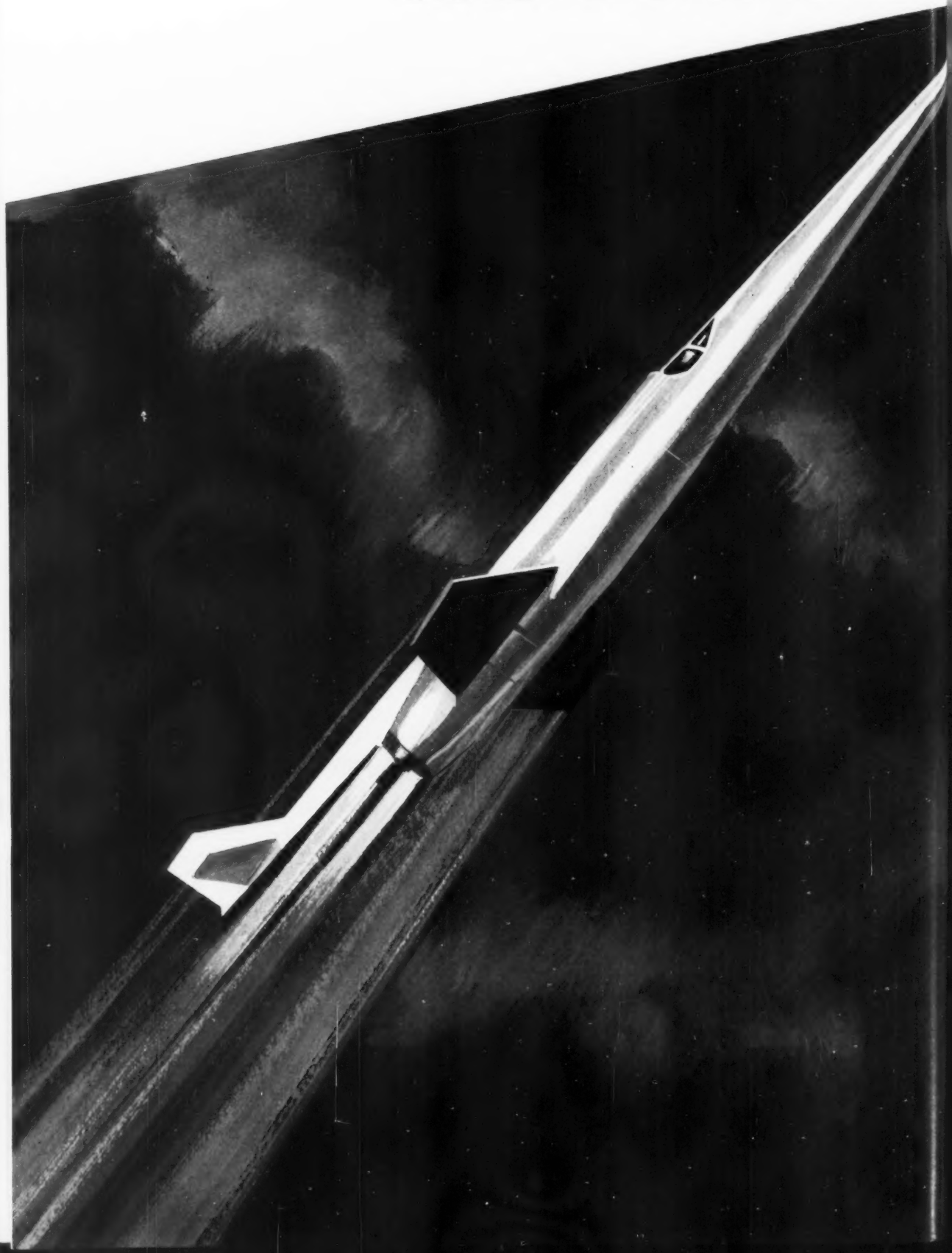
AEROSOL



PACKAGING

may be the propelling force that your sales need!

You've seen many aerosol products "take off" on a sharply rising sales curve. Hair sprays. Colognes. Room deodorants. Today's new pharmaceutical aerosols. And hundreds more. Perhaps *your* product has similar potential—and needs only the propelling force of aerosol packaging to start sales zooming for you.

Would your product be "better" as an aerosol?

If it can be sprayed, brushed on, dusted or daubed, your product is a likely candidate for aerosol packaging. As a leading producer of aerosol propellants—the "Genetrons"—General Chemical will be glad to help you get started.

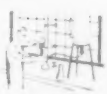
Help in making and marketing

General Chemical offers many helpful services to present and prospective aerosol marketers. For example, we can tell you about promising new aerosol formulations developed in our "Genetron" laboratories . . . and can assist in the development of *your own* new aerosol formulation. Our specialists will study your formulation requirements and help you determine the proper "Genetron" propellant compatible with your product, its container and its uses. We will also be glad to put you in touch with highly capable contract fillers in all parts of the country who will work with you from the planning and testing of your product through to commercial filling—without any outlay on your part for plant or equipment.

General Chemical services include:

New Product Ideas

Technical Literature and Market Data



Technical Assistance with Product Development and Formulation

All these services are readily available. Taking advantage of them may enable *you* to make a good product a "better" one . . . send it rocketing to higher sales.

For further information—or if you would like to arrange for a special presentation—write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

genetron®

AEROSOL PROPELLANTS

Putting the "push" in America's finest aerosols

Basic to America's Progress

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

How this package helps sell bleach

More shoppers every day are picking up this eye-catching new bleach package.

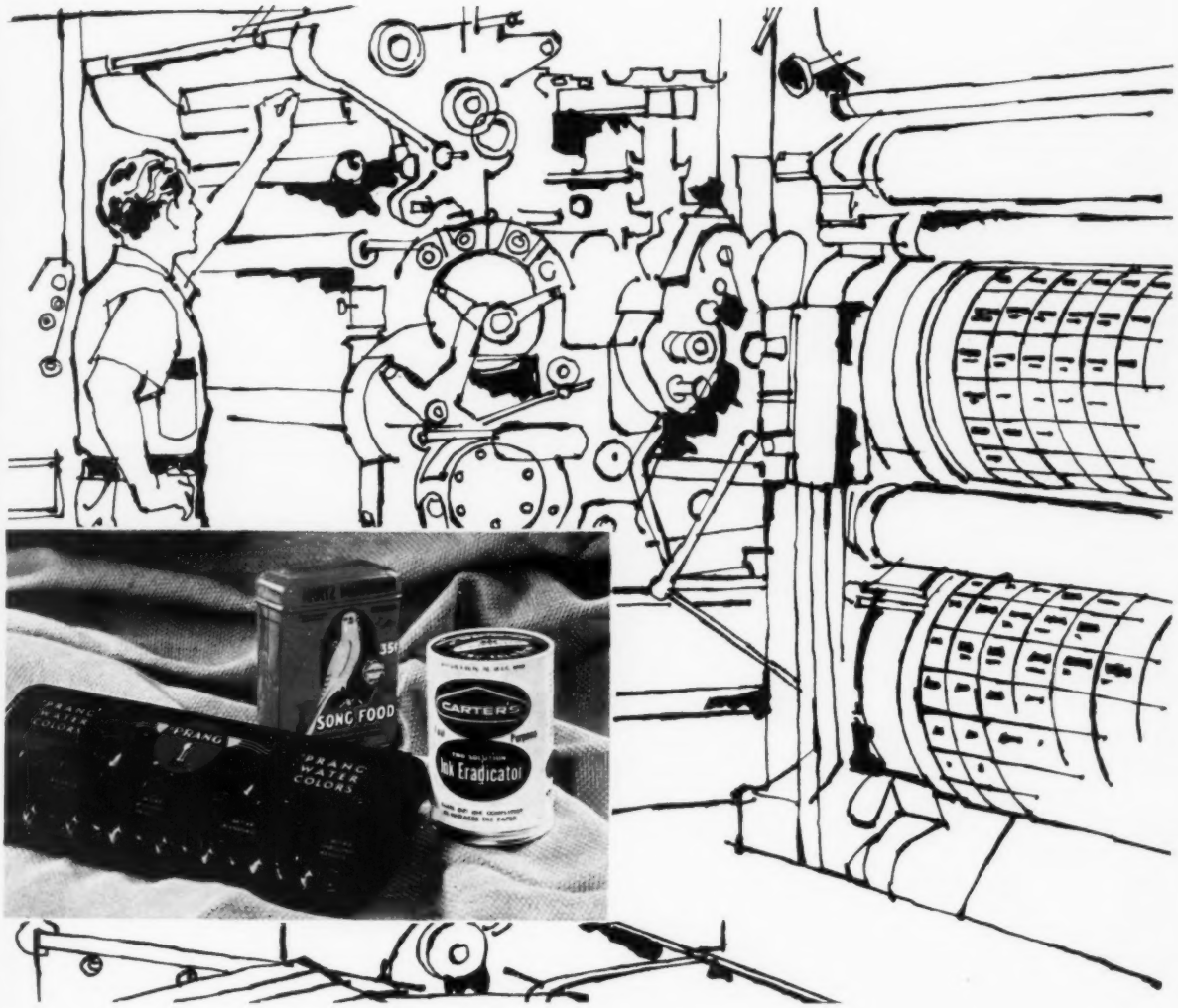
Its fluted design looks inviting on the shelf. And the oversized transfer bead makes a handy finger grip for lifting the bottle into the shopping basket.

The new improved Armstrong cap is used, with a patented Accobleach liner that safely vents yet assures a tight seal.

Bring us *your* special packaging problems. Armstrong Cork Company, Lancaster, Penna.

Armstrong PACKAGING

WATCH ARMSTRONG CIRCLE THEATRE EVERY OTHER WEDNESDAY EVENING ON CBS-T



CLARK CONTAINERS SELL ON SIGHT. Eye-catching design, faithfully reproduced in true-to-life color, makes each Clark container a sure-fire stimulator of the buying impulse. Even the most intricate art is lithographed by Clark experts with fine-line accuracy . . . and a fine eye to quality. Clark lithographed metal containers have an incomparable fresh beauty and sparkle. They sell on sight.

Colorful booklet "A Businessman's Guide to Container Design" gives basic facts on how containers are designed to sell on sight. Send for a copy today.

lithographed metal containers

J. L. CLARK

J. L. Clark Manufacturing Co., Rockford, Ill.;
Liberty Division Plant and Sales, Lancaster, Pa.;
New York Sales Office, Chrysler Bldg., New York 17

NOW THE GREATEST LINE IN FILLING MACHINE HISTORY BEARS A GREAT NEW NAME

Arthur Colton Company has purchased the 50-year-old Hope Machine Company, thus offering a total of 125 years of filling machine experience and the only *complete* line of filling equipment for the pharmaceutical, food products, paint, chemical, petroleum, cosmetics and dairy products industries.

Now, for fast, accurate, large volume fills of liquid, viscous and semi-solid products, the Colton-Hope piston-type fillers round out our complete range, including the most widely accepted equipment for aerosol container and tube filling, tableting and capsulating.

All Colton-Hope machines will be engineered and manufactured in the Michigan plants of Arthur Colton Company. The combined facilities and experience of the two great pioneers will further expand the special applications and engineering services always provided by both companies. Sales and service will be handled by an augmented Colton staff.

This important acquisition is the fourth by the Arthur Colton Company since it became a division of Snyder Corporation in 1949, all aimed at developing and marketing better high speed machinery for the packaging and pharmaceutical fields.

ARTHUR COLTON COMPANY

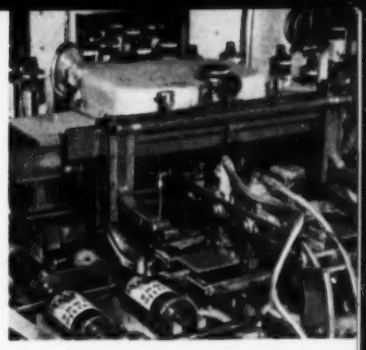
DIVISION OF SNYDER CORPORATION

3446 E. LAFAYETTE • DETROIT 7, MICHIGAN

PLANT NO. 2—1030 McDOUGALL, DETROIT • PLANT NO. 3—MANCELONA, MICHIGAN

Sales and Service Engineers Coast-to-Coast • Export Office—13 E. 40th St., New York City • Offices in Principal Cities Throughout the World

Specialists in Drug, Chemical and Filling Machinery for 75 Years



Over 3000 stock bottles—standard closures by the score—applied Color Lettering

The magic of Owens-Illinois designers turns any stock bottle into a special container for you!

Through the magic of O-I designers, any of the thousands of stock bottles on their shelves can be turned into a special container designed *exclusively for your product.*

The glass container best suited for your needs becomes an economical, sales-attracting package . . . gives your product the selling advantages on store shelves.

Take advantage of the Owens-Illinois Complete Packaging Approach . . . the right containers, most attractive label designs, best fitments or closures, and sturdy merchandising cartons . . . plain or imprinted with your sales message.

Get the full information from your nearby Owens-Illinois representative, on how O-I containers can help in your selling program.

DURAGLAS CONTAINERS
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

BAG-VERTISING

IS IN GREAT DEMAND

Secure a larger share of the constantly growing printed-bag business by freeing your bag department of obsolete equipment. Take full advantage of latest flexographic inks; get the utmost out of precision—make rubber printing plates and work with higher press speeds by installing a

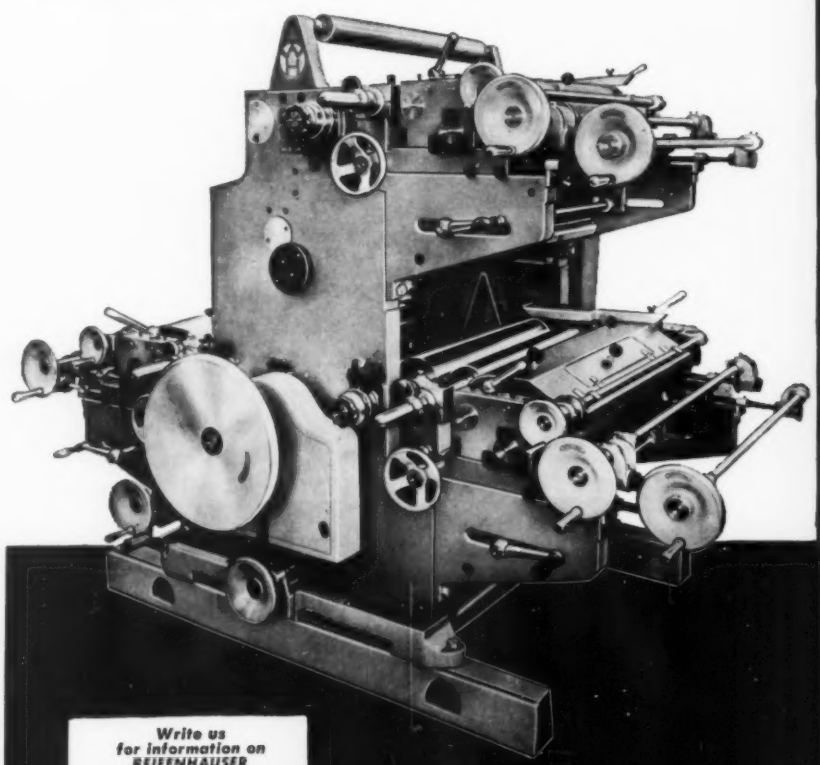
HEINRICH FLEXOGRAPHIC END PRINTER

the ALINA-X-30

Our latest model is acclaimed throughout the converting industry for its dependable performance and excellent ink coverage.

Hundreds of millions of paper bags carrying effective "BAG-VERTISING" are being printed every week on our ALINA-X-30 Endprinters.

Single plants have installed 10, 15 and even 25 of these proven Endprinters. Follow these leaders . . . send for literature describing this outstanding printer.



Write us for information on REIFENHAUSER Extruders for Thermo Plastic Materials

STUDY THE EXCLUSIVE FEATURES OF ALINA-X-30

MACHINE FEATURES

19" drying distance between colors •

Two, three or four printing units in a four-color frame •

For 20", 25½", 31½", 36", 42" and 50" maximum printing width •

For installation to the right of the bag machine (optional for installation to the left) •

Universal shaft drive with bevel gears (optional for chain and sprocket) •

With side motion i.e. widely adjustment of machine as a whole on foundation •

With web in-feed rollers •

Main drive gears mounted outside machine frame for easy accessibility •

Solid construction and extra-heavy side frames, mounted on a rigid foundation, assure vibrationless high-speed operation

PRINTING UNIT REFINEMENTS

ANILOX engraved ink transfer rollers •

Changeable speed ratio of rubber fountain roller •

One-side parallel adjustment of ink control, ink transfer and impression •

All-enclosed fountain including splash guards •

Precision register adjustment across the web and in its traveling direction •

One-lever locking of whole inking unit •

One-piece plate cylinders, ground, balanced and complete with 10 pitch gear

Printing repeats from 9" to 31½" •

Proven design of printing units insure excellent ink controls and make possible the use of pigmented inks of all types. Positive register and highest printing efficiency assured.

HEINRICH EQUIPMENT CORP.

111 EIGHTH AVENUE
NEW YORK 11, N. Y.

Q: And what else do you associate with STAN-PAK?

They're leaders in...

Q: And what else

They're leaders in...

CLOSURES and LINERS

STAN-PAK™ offers you single-source convenience. Film, foil, paper and board. Laminations. Sheet and roll stock. Bags, pouches, boxes, sleeves. Labels. Lining materials. Inner and outer wraps. Vacuum and controlled atmosphere packaging. Special purpose containers. Nineteen mills and manufacturing plants. Sales offices throughout the United States.

Q: And what else

They're leaders in...

CLOSURES and LINERS

One of the many areas in which STAN-PAK can help you get packaging mileage. Now one of the country's largest integrated packaging manufacturers, Standard Packaging offers you a comprehensive service, national in scope. Capacity . . . both manufacturing and creative. Representatives who know their business . . . and regard it as a privilege to study yours. STAN-PAK: a good company to know, and depend upon.

STAN-PAK

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America's fastest growing packaging source
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REACH, PODNER!

This is the moment of decision when the "reach appeal" of your carton is put to the test.

Gardner's creative department can design a more arresting carton for you. One with colorful eye and appetite appeal that'll make shoppers reach for your product.

For more information on dairy product custom packaging, check your Gardner sales representative. Ask him about Gardner stock designs, too.

Whatever your volume or plant location—you'll find Gardner service outstanding.

Persuasive Packaging

DIAMOND GARDNER CORPORA

diamond gardner

THE GARDNER DIVISION
DIVISION OFFICES: Middletown, Ohio

CAMPCO PROGRESS

latest developments in plastic sheet • film • fabrication

Campco Styrene Package
gives lock-in protection

Guardian Electric Company was looking for an attractive "shock resistant" package for a new line of miniature relays. Special protection was important because of tiny contact pins and varied shapes. A different package for each type would be costly and cause delay on the packing line.

Plastofilm Inc., of Wheaton, Illinois had the answer with a special formed insert of high impact Campco Styrene sheet. Although the relays have as many as ten different types of connectors, they fit snugly in identical compartments of the insert . . . with lock-in protection from shock.

How is this possible—well the compartments grip the relays by a combination of side walls, channels, grooves and holes. Each is capable of gripping any one of the relays in some way . . . providing ease of handling and filling in assembly and packaging.

Another feature is a see-through lid that allows instant recognition of printed codes on the relays. Packaging in plastic can pay off for you, too. Perhaps Campco Styrene is *your* answer.

One Reliable Source

Now you can fill all your requirements for packaging plastics from one reliable source. Campco now offers Polyethylene, Acetate, Butyrate, Styrenes, Polypropylene, Nylon — in sheets or rolls depending on gauge . . . cut to size if desired . . . clear or colored transparent . . . translucent or opaque. Rolls of clear film in stock for immediate shipment at cost savings.

Double-bubble blister of Campco Butyrate doubles market for small stapling machine

The Wilson-Jones Company wanted to expand its market for small stapling machines, currently being sold through the stationery store. It reasoned that if housewives were exposed to their product in self-service outlets, they'd find them useful for fastening jobs around the house. A package was needed that would be pilfer-proof, capable of delivering its own sales message, and interesting enough to create impulse buying.

Plastofilm Inc. of Wheaton, Illinois delivered the answer with a combination cardboard sheet and plastic blister of Campco Butyrate. The one-piece blister has two bubbles—one for holding the stapler and the other for 1000 staples. The 6x8 inch card is too large for the pocket and the blister designed so that it cannot be pulled away without destroying the card . . . making pilferage difficult. Impulse buyers are enticed by the see-through blister and sold by the printed message of the housewife doing basic fastening jobs.

Without increasing packaging costs, this new design in a very short time more than doubled sales.

Campco Butyrate is extremely strong and pliable. It can be deep formed, patterned and hole punched without shattering or cracking and is easy to decorate. Available in crystal clear or a variety of colors—rolls and sheets in thicknesses .005" to .125" stock or custom size.

Campco Acetate Sells
while it protects

More and more products are appearing in sales-stimulating packages of crystal-clear see-through Campco Acetate. A special non-blushing formulation in the material enables it to maintain clarity during forming—prevents clouding and discoloration. Campco Acetate protects products, too. In addition to increased sales, manufacturers report fewer rejects due to shipping and handling damage. Campco Acetate is easy to form, unusually low in cost.

Packages by Plastofilm Inc., Wheaton, Ill.

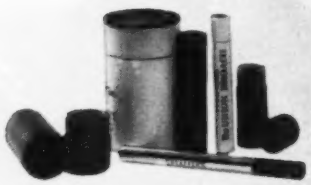
Received Your Campco Personal File? This data-packed reference file on thermo-plastic sheet and film is yours on request—just send name and address on Company letterhead to Campco, 2708 Normandy Avenue, Chicago 35, Illinois.
CAMPCO Sheet and Film, **a Division of Chicago Molded Products Corp.**

diamond gardner
THE GARDNER DIVISION
DIVISION OFFICES: Middletown, Ohio

SIFTER TOPS
– with "eye-and-use" appeal
for granular products.

CUSTOM PACKAGING
– for standout individuality

PAPER CAP CONTAINERS
– for the ultimate
in low cost utility



GOOSENECK CONTAINERS
– for efficient, economical
small unit packaging

PROBLEM?

...chances are, N. B. has the practical answer to your product packaging problem!

N.B. packages are custom-fitted to your product and its purpose—designed for you, produced for you and priced for you. Our package engineers and designers will be glad to discuss how tubular packages can be used to implement your products' acceptance... glad to work with you through every stage of development. To learn more about Niemand's unique service, write today for our most recent bulletin.

NIEMAND BROS., INC.

Manufacturers of Paper Tube Products

45-08 Ninety-fourth St., Elmhurst 73, Long Island, N.Y.

THERMATRON...the only manufacturer of electronic welding equipment with national sales, service and product engineering!

Now THERMATRON is just a phone call away! Dial the office nearest you and let our engineers help you with your own particular heating or welding application.

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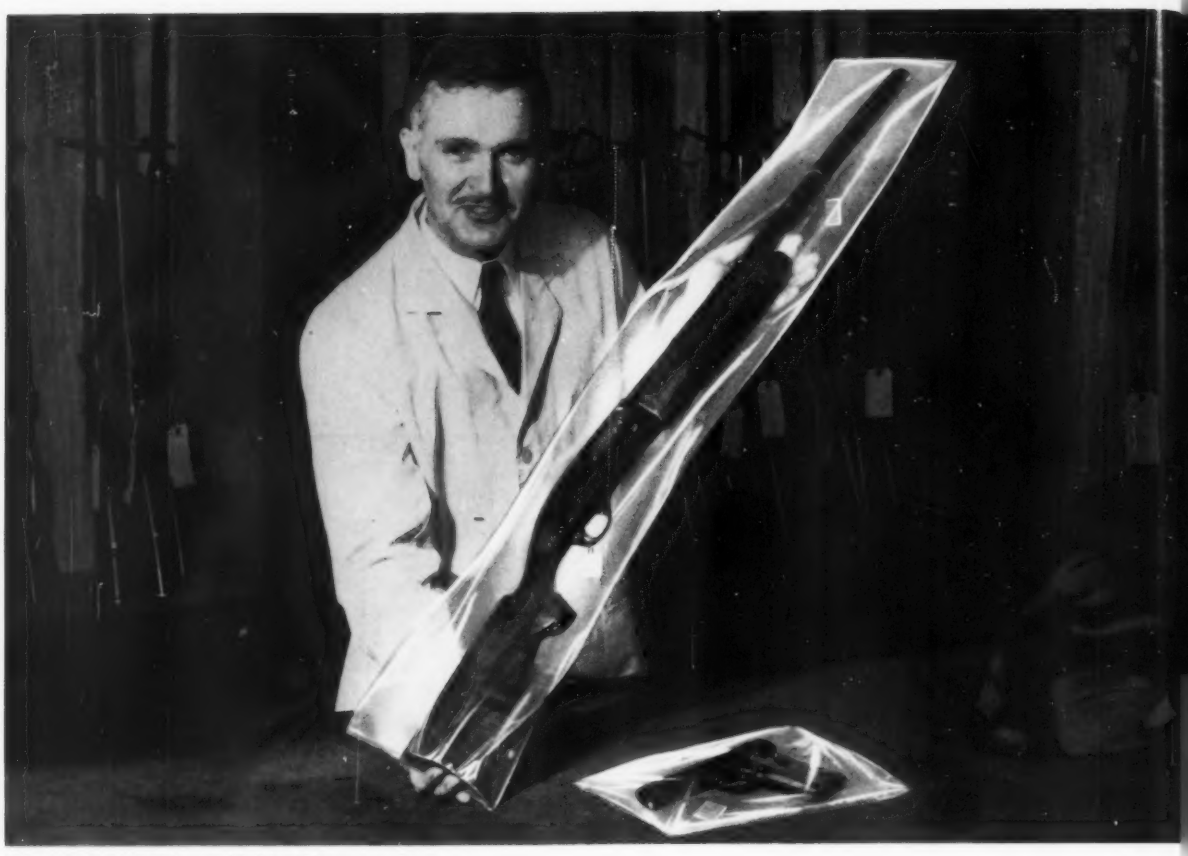
THERMATRON
ELECTRONICS DIVISION OF WILLCOX & GIBBS

WILLCOX & GIBBS SEWING MACHINE COMPANY • 214 WEST 39TH ST., N. Y. 18, N. Y.



RUST PROTECTION is provided by this new package consisting of chemically impregnated rust-inhibitor disks and bags of glossy transparent film of ALATHON 23A. And bag permits easy identification and inspection . . . opens new self-service merchandising possibilities. (NO-WRAP rust-inhibitor packages by Carl H. Lampert Co., Milwaukee, Wis.)

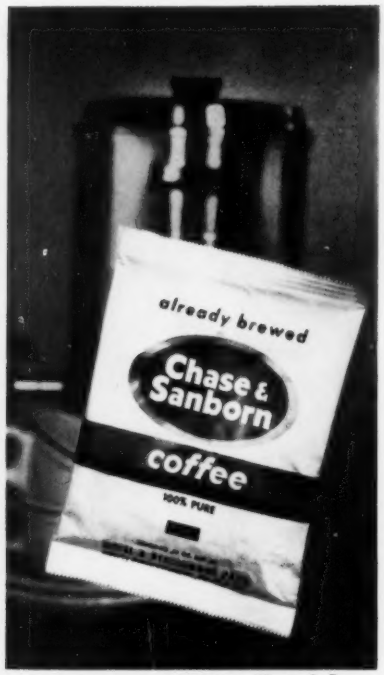
SALES-WINNING transparency of polyethylene film gives this package for grass seeds its consumer appeal. The toughness and moisture resistance of ALATHON protect seeds before and after the sale. (Film by Texas Plastics, Elsa, Texas, for Turf Research, Inc., Sioux City, Iowa.)

Here's why aDu
may solveyou

EYE-APPEALING squeeze tube for Prell Concentrate Shampoo gives attractive display to the product. This unbreakable, transparent package, made of ALATHON 20, also reminds consumers when it's time to repurchase. (Tube by Bradley-Sun, Division American Can Company, Hillside, New Jersey, for Procter & Gamble, Cincinnati, Ohio.)

TIME-TESTED package for Lipton Soups uses ALATHON 16 in a paper/foil/polyethylene construction. Heat sealing of the package is excellent; and more than five years of successful use by Thomas J. Lipton, Inc., Hoboken, N. J., have proved it to be a "secure and economical" package. (Coated by Flexible Packaging Div. of Continental Can Co., Mt. Vernon, Ohio.)

ATTRACTIVE and handy, this intricately shaped beehive squeeze bottle for honey offers a merchandising plus. And odorless, tasteless Du Pont ALATHON 20 polyethylene resin will not affect delicate food flavors. ALATHON may be molded in a variety of colors. (Molded by the Royal Manufacturing Co., Prescott, Arizona for Food Fashion. Inc., New York, N. Y.



FRESHNESS-PROTECTING Chase & Sanborn Hotel & Restaurant Soluble Coffee Pack consists of foil-laminated pouch paper coated with ALATHON 16 on the foil side. Easily heat-sealed, this package ensures perfect stability of product. (Pouch paper produced and printed by Riegel Paper Corporation, New York, N. Y., for Standard Brands, New York, N. Y.)

aDu Pont ALATHON® polyethylene resin

eyour packaging problem, too

Each of these six packaging problems was successfully solved with a Du Pont ALATHON polyethylene resin. Each package takes advantage of the superior protective qualities of ALATHON, its ease of conversion, its sales-winning consumer appeal. Du Pont has developed an entire family of ALATHON polyethylene resins, each one with a particular combination of properties which makes it outstanding for a specific application. One of these resins may well be the answer to your problem of keeping package costs down, package appeal up.

For additional information and assistance in selecting the ALATHON best suited to your needs, or for all future issues of PACKAGING TRENDS magazine, mail the coupon below.

POLYCHEMICALS DEPARTMENT

DU PONT

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BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept.
Room A-285, Du Pont Building, Wilmington 98, Delaware

☐ Please send me additional property and application data on Du Pont ALATHON polyethylene resins.

☐ Please send me all future issues of PACKAGING TRENDS magazine.

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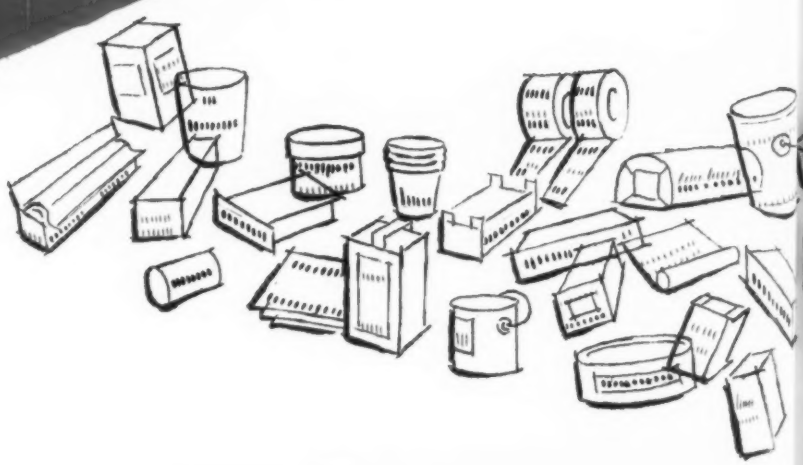
PRINTING INKS...



FOR THE *Complete* PACKAGE

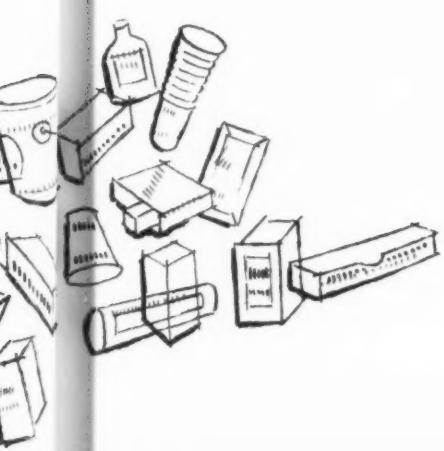
Two famous names in the packaging field—General Printing Ink and Bensing Bros. & Deeney—have been integrated to provide the packaging industry with an ink service that is *really* complete.

Now, from a single source, in all areas: a complete package of printing inks . . . GPI letterpress, offset, gravure and BBD flexographic inks.

A complete package of research and technical service.

A complete package of national and local "task force" sales representation—trained and equipped to handle any printing ink requirement—regardless of volume, no matter the area.

In short, a *complete* package to guarantee that your package is complete, when it comes to ink. And when it comes to ink come to GPI.



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DIVISION
Sun Chemical Corporation
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New...and Successful...Package Design

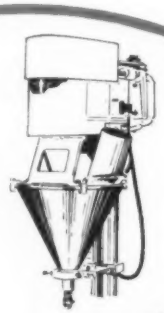
. . . depends strongly upon efficient, capable machinery.

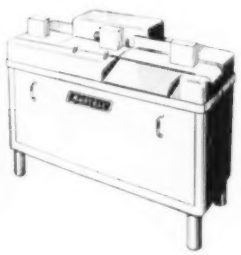
Bartelt has played an important part in the development of packages for many established brand products. Let us analyse your requirements and show you how to meet them economically with fast automatic equipment.

Bartelt Packaging Machinery is custom designed to meet your specific requirements by experienced engineers . . . built to machine tool precision by expert craftsmen . . . of high quality materials for long, dependable service.

BARTELT *"Machinery for Creative Packaging"*

FILLER ACCURATELY DISPENSES . . .
Powders,
Granulars,
Semi-liquids,
Liquids
Pastes

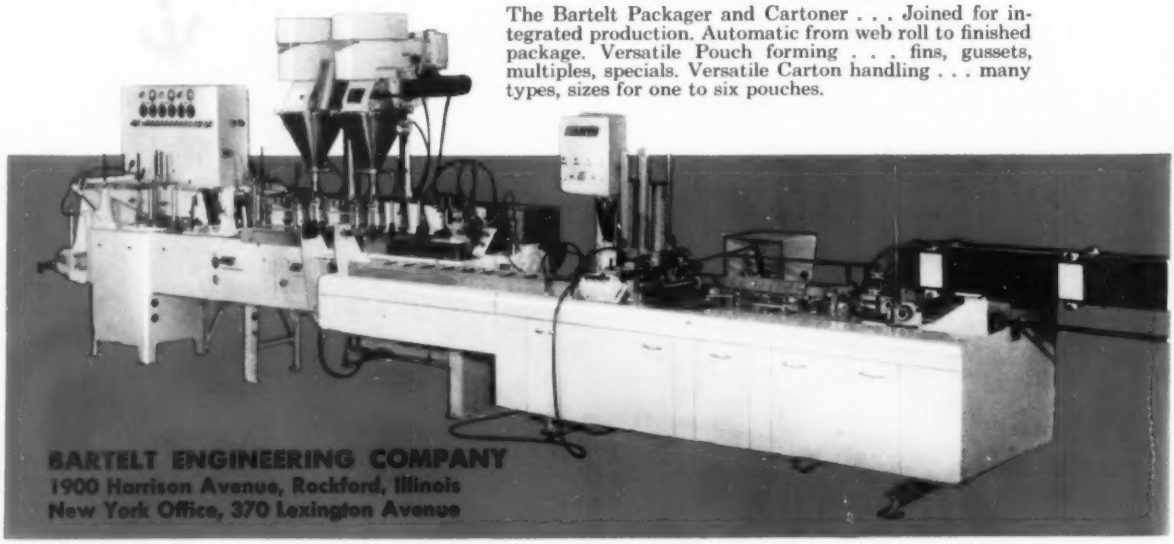




CHECKWEIGHER
Speeds to 200 p.m.
Accuracy to 1/64 ounce
Weighs up to 2 lbs.
Most containers, open or closed.
Continuous Motion
Electronic

A PACKAGING PRODUCTION LINE

The Bartelt Packager and Cartoner . . . Joined for integrated production. Automatic from web roll to finished package. Versatile Pouch forming . . . fins, gussets, multiples, specials. Versatile Carton handling . . . many types, sizes for one to six pouches.



BARTELT ENGINEERING COMPANY
1900 Harrison Avenue, Rockford, Illinois
New York Office, 370 Lexington Avenue

Background for Packaging

Notes, quotes and comments. An editorial feature

Packagers will be staggered by the cost and complexity of procedures to comply with the new Food Additives Amendment to the Food, Drug & Cosmetic Act. Crux of the new law is not merely establishing non-toxicity of packaging material itself, but isolating and analyzing incredibly small amounts of any chemical that may migrate into food. Cost of such tests will run anywhere from $1,000 to $250,000 and may take a minimum of two years. F&DA men refuse to acknowledge the safety of any polyethylene for foods containing fats and oils, and have not even approved cellophane because of plasticizers used in some coatings. Furthermore, they say almost all paper products and textiles used in food packaging will have to be tested because of additives used. Inks, adhesives and can linings are due for investigation. For more on this subject, see this month's lead story, "Crisis: The New Food Law," p. 75.

Price cutting by major can manufacturers, generally conceded to amount to intra-industry warfare, has other more subtle but perhaps equally significant implications. American Can admits it wants to protect itself and its customers "by making can prices competitive for those customers who want to buy containers from expert can makers rather than hazard the manufacture of their own cans." And a new annual report by Continental Can says its price cuts should make it "more difficult for can users to justify the capital investment for self manufacture." (See p. 178.)

Frozen-food packers aim cook-in-the-bag foods at the American penchant for a hurry-up breakfast. At a press breakfast recently, Continental Can demonstrated such nourishing favorites as blueberry pancakes and sausage, corn fritters and Canadian bacon, kippers and hashed-brown potatoes—all put up in polyethylene-polyester bags requiring only about 10 min. in boiling water.

Who's pilfering—the customers or the help? Eye opening to packagers is a report by *Grey Advertising* and *E. B. Weiss* on several studies in retail stores, indicating that actual shoplifting accounts for only $1 out of every $16 worth of "stock shrinkage." The rest is attributed to such factors as employee dishonesty, short shipment and poor accounting practices. Is it right, therefore, to make packages big and bulky to discourage pilfering—if that solves only 1/16th of the shortage problem?

Doctors are demanding safety closures for drugs to avoid accidental poisoning of children, which, according to a report in the *Journal of the American Medical Assn.*, now causes 35% of the deaths from poisoning of children less than five years old. The report, by *Dr. Jay M. Arena*, a Duke University pediatrician, is based on a study of 1,600 homes. The doctor favors a plastic, snap-on-type cap, which he found was difficult for small children to remove but easy for mothers to remove and replace.

Insect resistance, a major problem for food packagers, is only as good as the weakest point of the package, say authorities of the Marketing Research Div., Agricultural Marketing Service. Citing the triumph of penetrating insects in boring through a variety of packaging materials, the Stored-Product Insects Section reports after eight years' research that the toughest package material is worthless if there is an opening anywhere and that even insecticide treatment will not dissuade insects because they "seem to have a natural instinct for locating [*Continued on page 38*]

taste
tingler.....
Old
Fashioned
COOKIES

.....BRITE-PAK ENAMEL COAT

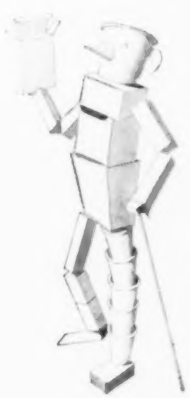
More and more packagers are *upgrading*
with Enamel Coat bleached board
to get more taste-tingle for better sales.

Enamel Coat's gleaming surface can't be beaten
for full color process printing . . . for picturing
your product so tastily it sells on sight!

And you can see why women prefer and re-order
the clean Enamel Coat package. Brite-Pak bleached board
is virgin white on both sides and all the way through.
It looks so much *more sanitary* than old-fashioned
containers with their drab, gray interiors next to the product.

Brite-Pak Enamel Coat is economical, too.
See how easily *you* can upgrade your packaging
and stay ahead of competition.

For full details, write
to Bleached Board Division,
West Virginia Pulp and Paper Company,
230 Park Avenue, New York 17, N. Y.



West Virginia Pulp and Paper

Background for Packaging

[Continued from page 35]

a break in a package." *Conclusion:* Much more research is required to develop truly insect-resistant packages.

Shelf hoggers are the major target of a new businessmen's committee organized "to police packages." Created by the *East Bay Food Dealers Assn.*, Oakland, Calif., the Industry Improvement Committee is campaigning by mail and publicity to persuade manufacturers to design packages that will facilitate display and check-out, reports *Sales Management.*

Overworked phrase? "What is often forgotten when someone starts talking about *integrating the packaging development program* is that a company must have a program—that is, a policy or family of packaging design—to follow before it can begin integrating its package development. It is essential that in trying to set up any given criteria or plan of action for the development of a package, you must know just where you want to finish before you begin."—*William H. Drews*, packaging coordinator, The Black & Decker Mfg. Co., to an American Marketing Assn. Workshop.

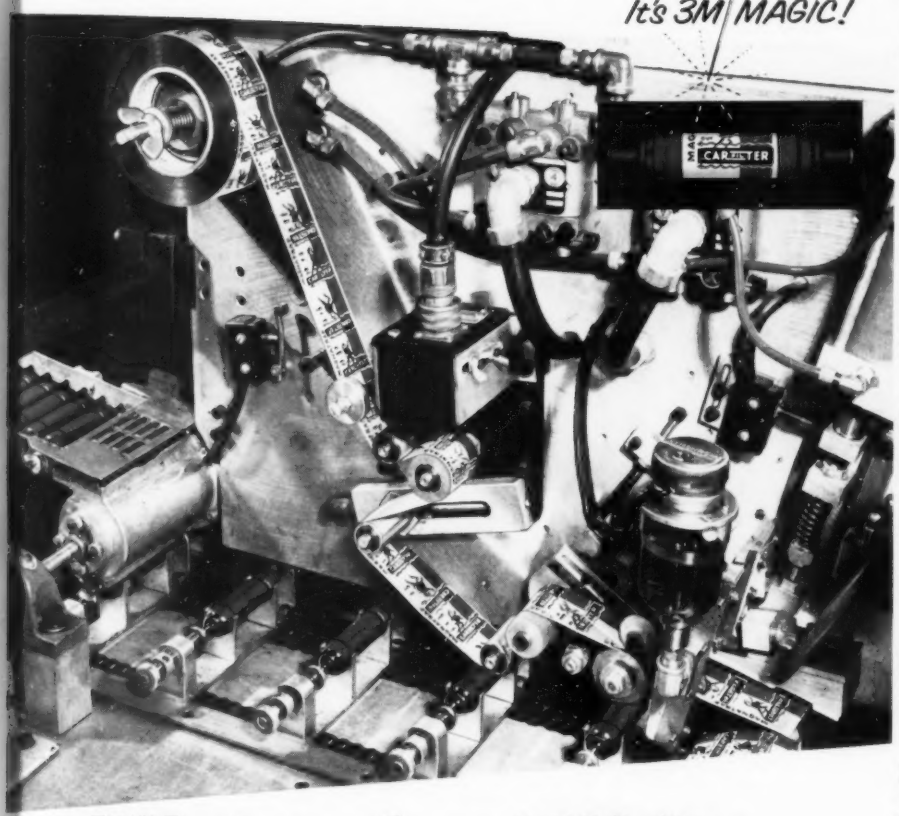
Greatest single promotion for a packaging material is 10-page special section on aluminum foil appearing in Sunday New York *Herald Tribune* of March 22, including a full-page sample of Alcoa foil. Editorial commentary by *Clementine Paddleford* and other *Herald Tribune* by-liners centered largely on cooking and storage uses for household foil. But experience has shown, with both foil and polyethylene, that household popularity leads to packaging popularity.

Fresh thought: "In the perishable-food business, a slow sale is almost as bad as no sale at all, because not only has the package failed in its job of promotion, but the product that is not at its peak of freshness and quality is likely to fail when it's time for a resale. Instead of thinking only of how to make the product's shelf life longer and longer, companies should begin thinking of how to move the product from the shelf faster and faster."—*Eric H. A. Teran* of Jim Nash Associates.

Aerosols offer retailers a big opportunity for store-wide trading up, *Chain Store Age* points out. Druggists surveyed say they like the higher dollar-volume potential (in one store, aerosol shaving preparations average 81 cents in price, non-aerosols 58 cents), but they complain that pushbutton convenience alone isn't sufficient customer inducement. Managers are promoting aerosols with supplier display materials, special positions and mass displays. But they want increased manufacturer promotion to help more aerosols "hit the big-volume category—it could mean a lot more dollar volume for us."

Retail selling, long burdened by a lack of good personal salesmanship, may find one solution to its problem in greater use of tags. Test results reported by the *New York Times* showed tagged merchandise offered on a self-selection basis outsell non-tagged items handled by clerks. In apparel, women's tagged clothing outsold non-tagged nine to one and children's by four and a half to one. Tagged electrical goods were seven to three, with tagged radio and TV receivers at three to one.

Are you aware that a new generation of consumers has arrived with ideas about spending, saving and living never known before? *Nation's Business* emphasizes that product performance and price are no longer the sales lures they once were. Now the consumer wants goods that adjust to him, that are really new, that offer advanced styling and up-to-the-minute sophistication. For packagers, here is the warning: "Merchandising will become harder, in that the profusion of competing products will make it possible for the consumer to have many alternatives to any one product. The task of merchant or manufacturer will be more to attract customer expenditures to him and his products rather than merely to persuade the consumer to part with his money."



TAPEnology rolls on 3,000 filter labels an hour . . . automatically!

A labelled filter cartridge in less than 1¼ seconds . . . up to 3,000 an hour! At Carter Carburetor Division of ACF Industries, Inc., that's the eye-blinking production clip for applying labels of printed "SCOTCH" Brand Polyester Film Tape No. 850 to their new in-the-line gasoline filter.

This custom-built machine (a modified S-603 "SCOTCH" Brand Pad Applicator) does the job . . . automatically tabbing and rolling the silver, red, and black tape-labels to the cartridges passing on the conveyor. The result: an attractive, eye-catching label that holds its message indefinitely; resists weathering, road film, engine heat.

What do you label? Chances are, "3M-MATIC" Taping and Dispensing methods can open up new possibilities for you to speed your production, save on costs, and get more attractive packages with tape. 3M Representatives will be glad to search out such possibilities for you. Ask your local "SCOTCH" Brand Tape Distributor for more information, or write: 3M Co., St. Paul 6, Minn., Dept. EA-59.

When tape costs so little, why take less than "SCOTCH" Brand?

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"SCOTCH" BRAND TAPES
TAPE-O-RAMA Contest
135 prizes . . . write for details
FEBRUARY 1—JUNE 30, 1959

"SCOTCH" is a registered trademark for the pressure-sensitive adhesive tapes of 3M Co., St. Paul 6, Minn. Export: 99 Park Ave., New York 16. Canada: London, Ontario.

MINNESOTA MINING AND MANUFACTURING COMPANY
. . . WHERE RESEARCH IS THE KEY TO TOMORROW

3M COMPANY

ON OUR MARK, GET SET . . . GO

good packaging helps products go . . .

to the market and through the market . . . safely, efficiently, profitably.

the folding cartons, shipping containers and Sefton fibre cans covered by the CCA trade mark have the same goals you have . . . to make your products go.

much of our success in achieving these goals is due to our creative departments—structural design, machinery development, market research and design laboratory.

this creative support is available to you from CCA plants all over the country.

CONTAINER CORPORATION OF AMERICA

structural design

design laboratory

machinery development

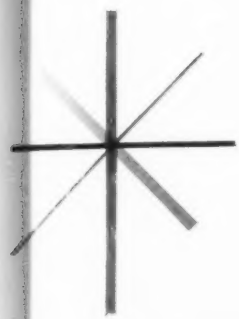
FOLDING CARTONS

SHIPPING CONTAINERS

SEFTON FIBRE CANS

PLASTIC PACKAGING

CCA



Better labeling...less work ...the HEAT SEAL way!

Labels by Steigerwald

Fine labels of all kinds at reasonable cost

Heat Seal requires no glue, no water, no clean-up. Ideal for bag headers and containers of practically all shapes and materials. Instantaneous or delayed action. Made to exact specifications, for use with high speed equipment. Continuous rolls or individual.

Send your present labels for redesign, without charge or obligation, or for estimate on printing in present form. A. M. Steigerwald Company, 910 West Van Buren Street, Chicago 7. Taylor 9-5400.

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Juniper 7-1257

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Cherry 1-2468

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Victor 2-6580

MILWAUKEE, WIS.
H. C. Lackowski
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Garden 5-5850

MINNEAPOLIS, MINN.
J. E. & J. L. Moor
3329 Dupont Ave., So.
Taylor 4-5309

ROCKFORD, ILL.
Blackhawk Paper & Cordage
630 Cedar St.
4-5261

NEW YORK 25, N. Y.
John H. McLaren
500 West 111th St.
Monument 2-0237

ST. LOUIS 5, MO.
Marvin Yates Co.
111 So. Bemiston Ave.
Parkview 6-0296

SILVER EMBOSSED • DIE-CUT OR SQUARE • FOIL SEALS AND TAGS • FLAT OR CONTINUOUS ROLLS • FOR HAND OR AUTOMATIC USE • HEAT SEAL • PRESSURE SENSITIVE • SPECIAL ADHESIVES

"When our customers want something special for their larger articles or a collection of articles, we recommend a corrugated container with a big picture window. And, for the window, we like to use acetate transparent film. This kind of packaging allows merchandise to *sell itself*... be inspected without damage... remain intact and in fresh condition."

Mr. Zuckerman is absolutely right about the value of window box packaging. For years it has given thousands of products from bonbons to baby shoes a chance to be seen and sold. If your product is large, it can still have the sales advantage of window box packaging with Celanese Acetate—the window that stays crisp and sparkling transparent... doesn't tend to wrinkle, or show its age. Celanese®

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Celanese Corporation of America, Plastics Division, Dept. 108E 744 Broad Street, Newark 2, N. J.

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3 ways to PRECISION LABELING

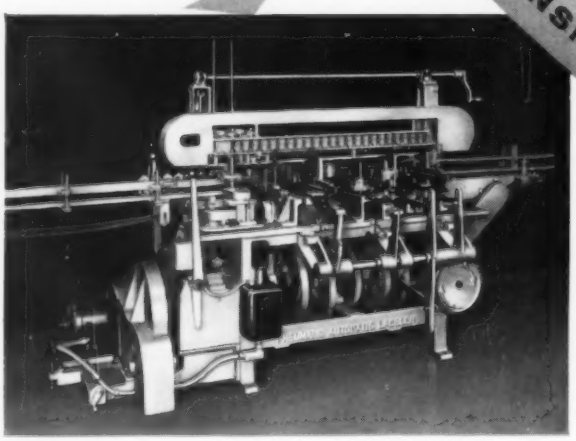
COLLETTA

McDONALD

DIREC-TRANSFER

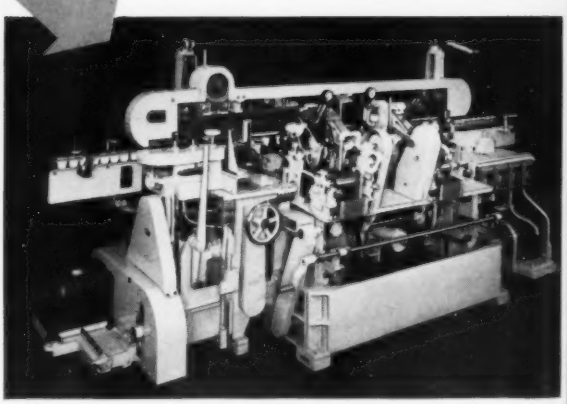
Portable bench type labeler for convenient application to wide range of shapes in glass, boxes, cartons, books and other objects. Offers full-surface gluing for high quality results. Changing from one job to another is a simple procedure, taking a maximum of five minutes.

Basically a semi-automatic unit, this model is easily made automatic by the use of available auxiliary attachments. Designed by Jagenberg of Dusseldorf, this precision built labeler is sold exclusively in the United States by Pneumatic.



This 4" Simplex unit is one of several models offered by Pneumatic as standard labeling equipment for over thirty years. Using 'glue on bottle' method for label pick-off, the McDonald Labeler has proved its efficiency in literally hundreds of installations. All models are well equipped with safety devices to prevent loss of production time and materials. Round, oval or rectangular shapes may be run with front only or both front and back labels being applied simultaneously.

PNEUMATIC SCALE CORP., LTD., 82 Newport Ave., Quincy 71, Mass. *Also: New York; Chicago; Dallas; Rochester; Seattle; San Francisco; Los Angeles; Rockwell Pneumatic Scale Ltd., London N.W. 2, England; Paris, France. Subsidiaries: Delamere & Williams Co., Ltd., Toronto; Carbert Mfg. Co., Inc., Cambridge, Mass.*



Duplex in action, this Labeler handles two containers at a time for front only or both front and back application. A three-station indexing turret with suction pads picks labels off bottom of label stack as turret revolves in counter-clockwise direction. Each label receives thin, uniform coating of adhesive from roller and is given time to "temper" as it travels to next station. At final position of turret, the label is transferred directly, through contact, to bottle. Continuous straight-through intake provides gentle handling of glassware, and bottles are in positive control throughout labeling process. Equipment includes "no bottle, no label" and "no label, no glue" safeties.

★ PNEUMATIC *Packaging and Bottling Equipment*

You bake it—
she heats
and
serves it

. . . IN THE PLUS CONTAINER. These oven-warm packages will soon be on her table for serving. Food packed in rigid aluminum foil Plus Containers enable her to serve baked goods as fragrant and mouth-watering as when they first left your oven. Yet the customer isn't the only one who benefits from the Plus Container. This superior packaging method provides production economies that will save important time and money for you. Bakers can eliminate up to six production steps, alone. As the world's largest manufacturer of aluminum foil containers, we know how to create an "efficient" package for you. Talk over your needs with us, soon.

The Plus Container

EKCO-ALCOA CONTAINERS INC.

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EKCO is the registered trademark of Ekco Products Company, ALCOA is the registered trademark of Aluminum Company of America. The corporate name and combination mark, EKCO-ALCOA, is used under license to the manufacturer by each of these companies.

One more reason* why you shoul

call Ball first

GLASS CONTAINER
FOR METAL CLOSURES
PACKAGING COUN

*One by one, gleaming Ball-made jars file past the watchful eyes of trained inspectors. Each container is checked individually. Scientifically engineered illumination at each inspection station makes it easy to spot and reject a container with even the slightest defect. This Single Line Inspection is another Ball "extra"... another Ball assurance that Ball containers will perform dependably on your filling line.

BALL BROTHERS COMPANY, INC.,
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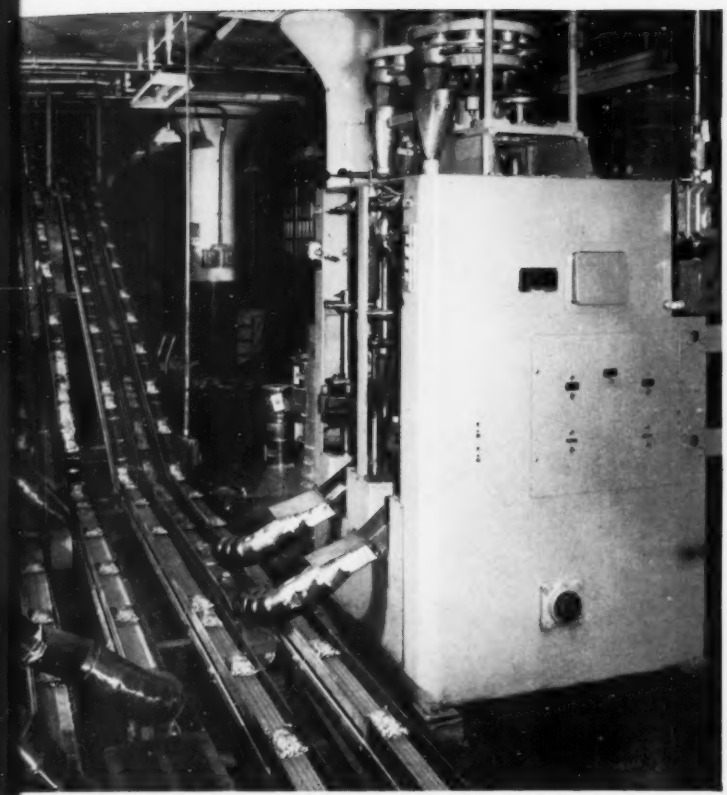


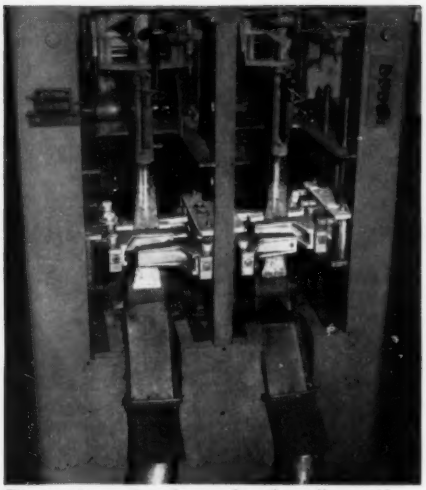
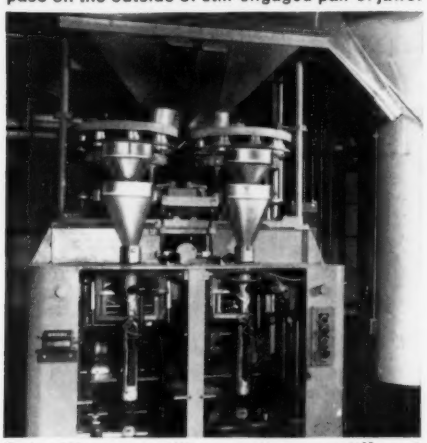


Photo shows hand-over-hand sealing action. Lower jaws, now disengaged, start to go up and pass on the outside of still-engaged pair of jaws.



Robo-Wrap versatility permits many different feeding arrangements. At General Mills, there is a volumetric feeder leading from storage hopper supplied from floor above.

Why General Mills chose Robo-Wrap for Pick-A-Pack

This new Robo-Wrap at General Mills' Chicago plant will soon be joined by 2 more machines—because it has been proved that Robo-Wrap increases the efficiency and economy of their packaging operation.

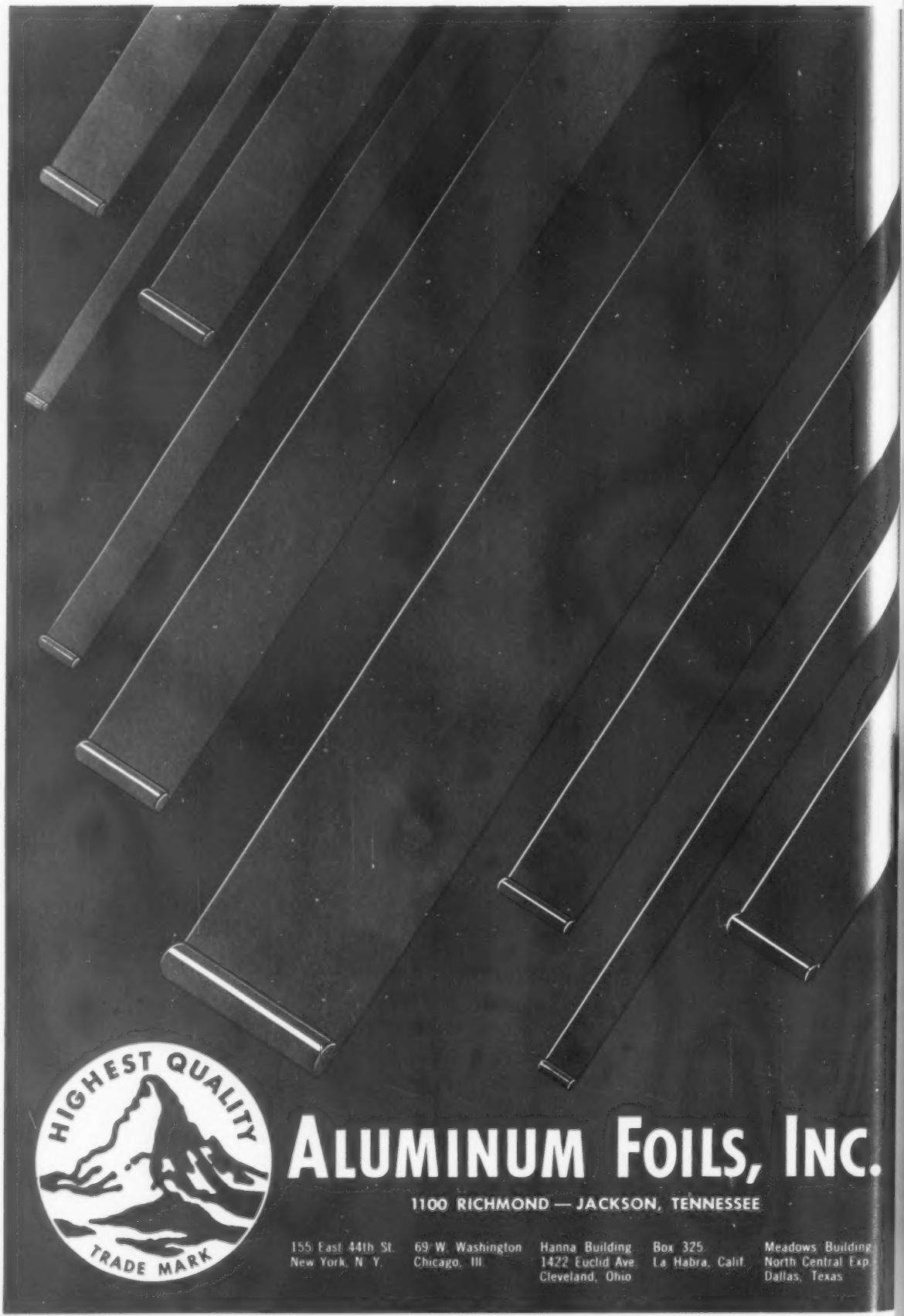
The Robo-Wrap forms, fills and seals pillow packages. Under production line conditions at General Mills, the Robo-Wrap cruises at 100 bags a minute and can run at 120 . . . it provides a better seal and fewer rejects even at these high speeds because its unique hand-over-hand action holds jaws in sealing position for a longer time . . . it minimized work stoppages due to torn paper roll stock because the combination mechanical and hydraulic jaws exert a strong, jerk-free pull . . . it is easily adaptable to handle a variety of other products.

Robo-Wrap packages in cellophane, paper, poly, plastic or laminates. See how it can answer your needs for speed, dependability, easy maintenance and adaptability.

General Mills Pick-A-Pack Package offers five tasty breakfast foods—Wheaties, Cheerios, Kix, Trix, and Sugar Jets—in one attractive carton.

Write for illustrated Robo-Wrap Folder that demonstrates features and advantages important to you.

LYNCH CORPORATION
Anderson, Indiana



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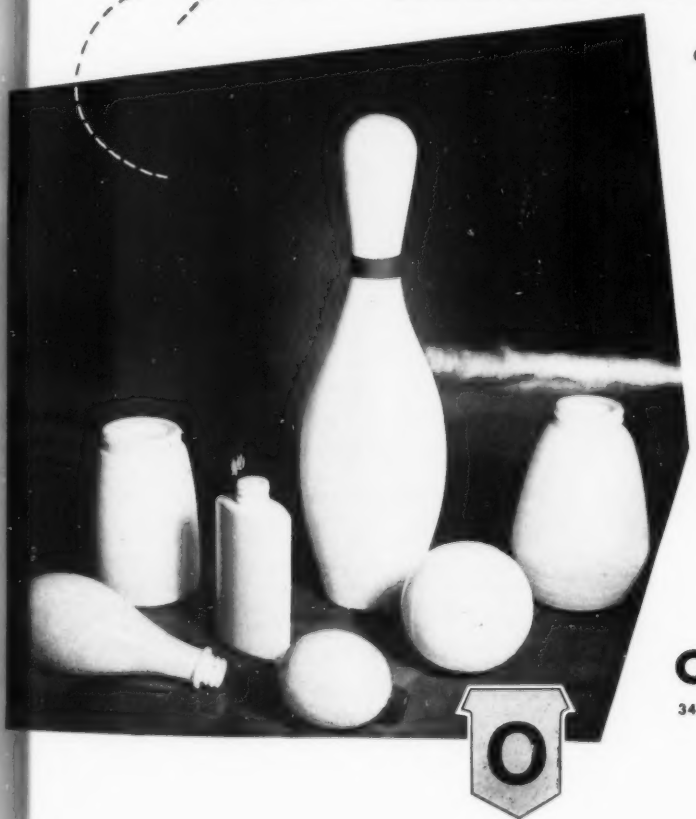
or unusual-



OUR BUSINESS IS PLASTIC BOTTLES

. . . and we have a wide variety of standard shapes, sizes and colors in stock. Or your product can have a special package design made exclusively for you at very low cost. Now, four-color decoration on your plastic bottles is available from our own offset presses. We invite your inquiries for any size bottle.

OLYMPIC PLASTICS

3471 SO. LA CIENEGA BLVD. • LOS ANGELES 16, CALIF

Equipment & Materials

Endprinter for narrow materials

Heinrich Equipment Corp. has introduced a flexographic endprinter for narrow-width material. Called the Alina, Jr., it is available in two models, to accommodate maximum web widths of 16½ and 19½ in. respectively (maximum printing widths of 16 and 19 in.). Among the refinements cited for the new machine are: synthetic-rubber fountain rollers, precision-register adjustment in the running direction and across the web while the press is in operation, an enclosed ink fountain and 18-in. drying distance between colors in three-color printing. *Heinrich Equipment Corp., 111 Eighth Ave., New York 11.*

Captive plastic cap for cans

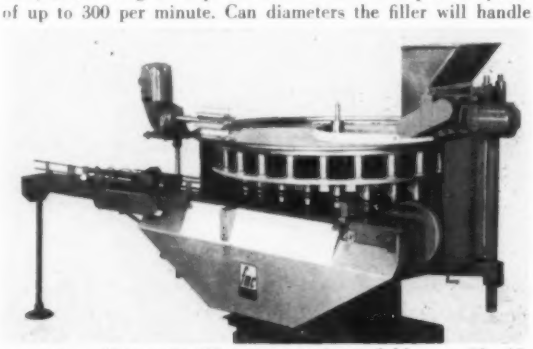
A new reclosable polyethylene captive cap for use on one-pint oblong metal cans is offered by American Can. According to the supplier, the one-piece molded plastic fitment offers a number of packaging improvements, including elimination of misplaced or soiled caps and reduced possibility of accidental product spillage because of the smaller orifice in the spout. Spout diameters in the company's line vary according to the viscosity of the liquid product to be packaged. The cap is attached permanently to the spout. A raised ring around the bottom of the inside of the cap snaps snugly over a similar raised ring around the outside of the spout, for secure closure in handling. *American Can Co., 100 Park Ave., New York 17.*

Protective, appealing cookie bag

A new cookie bag available from American Bag & Paper is designed both for greater product protection and increased merchandising appeal. The supplier's "Kard-O-Pak" paper bag has a heat-sealed inner liner of 300 MSD-53 cellophane that is said to eliminate grease wicking. The filled bag is closed by heat sealing, to afford the products inside optimum gas and water-vapor protection and to keep them fresh longer, the company reports. An automatic flat square bottom makes the bags easier to pack for shipment and permits them to stand up on shelf display. A die-cut window in the front of the paper bag offers product visibility through the transparent cellophane liner, and the bag itself is printed with high-gloss, rub-resistant letterpress inks. According to the supplier, the price of the bag is competitive with that of other bags which are used in the baked-goods industry. *American Bag & Paper Sales Corp., Water & South Sts., Philadelphia 47.*

Flexible filler for canned foods

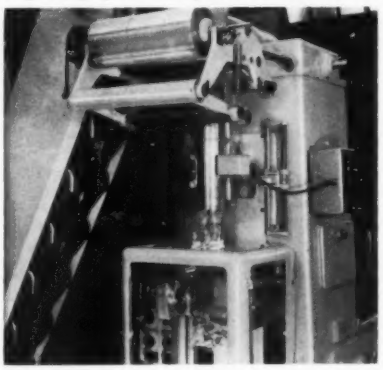
FMC's new Model ST Flexi-Filler is designed for filling granular, free-flowing food products into cans at reported speeds of up to 300 per minute. Can diameters the filler will handle



range from 211 to 603. The new unit is available as a 12-, 18- or 24-pocket filler, depending on can size and speed requirements. The semi-automatic machine can be converted to fully automatic operation simply by adding an automatic hopper and an adjustable brush on the filling top, the supplier says. For machine flexibility, the telescopic filling pockets are vertically adjustable to control volume for various can sizes, and the can-feed conveyor also is adjustable to meet specific user requirements. Straight-line travel accelerates operating speed while at the same time minimizing can damage, the company points out. *Food Machinery & Chemical Corp., Canning Machinery Div., San Jose, Calif.*

New bag-former, filler and sealer

A new machine for forming, filling and sealing pillow-type bags ranging in size up to 8 by 13 in. has been introduced by



a West German machinery manufacturer, Hamac Packmaschinen. On the supplier's Transwrap 200, the heat-sealable packaging material (film or other) is fed from roll stock over a special lightweight former and is pulled down by a pair of unheated jaws. The formed tube is sealed by stationary heat-sealing jaws and cut off by a horizontal knife enclosed in the pull-down jaws. The product to be filled (premeasured by volume, count or weight) is fed from a rotary feeding table linked to a bucket-type elevator mechanism. Output of the machine ranges from 18 to 40 bags per minute, depending on product and packaging material. According to the supplier, change-over time is minimized because length of the tube cutoff can be adjusted while the machine is running at production speed. *Hamac Packmaschinen G.m.b.H., Berliner Allee 61, Düsseldorf, W. Germany.*

Saturated sponge in flexible package

Ivers-Lee reports the development of a method for sealing a fully saturated sponge inside a flexible film or foil package. The sponge retains liquids and creams in a moist state in either single-unit or strip packages. Among the products that can be packaged in this way are: alcohol for pre-injection preparation of the skin, cleansing cream for cosmetic kits, shortening for greasing pans, spot-remover fluid and touch-up shoe polish. *Ivers-Lee Co., 215 Central Ave., Newark 4.*

High-speed sleeve-making machine

Speeds of up to 300 per minute in the production of sleeves for multiwall bags are possible with its new sleeve-making machine, says Potdevin. The unit automatically cuts a sleeve (crepe or other type of paper) up to 12 in. wide, applies glue, scores, bias cuts and cuts to length—all in one continuous operation. The sleeves then are carried off via conveyor belt for manual insertion into multiwall tubes. *Potdevin Machine Co., Teterboro, N.J.*

Grease-resistant polyethylene coating

A grease-resistant polyethylene-blend coating that is claimed to have performance characteristics equal to laminations has been developed by Semet-Solvay. The coating is suggested for

VISQUEEN FILM

TRADEMARK

BODY

Cuts Packaging Costs

FOR THE CONVERTER, VISQUEEN film's greater stiffness and body makes fabrication easier. Bags form easier. Film handles better on printing machinery and wrapping equipment. Opens easier for faster filling. Sealing is quick, easy, even. Down-time is eliminated. Production speeded.

FOR THE PACKAGE USER, VISQUEEN film's greater uniformity of thickness—with no weak spots—permits use of thinner, more economical gauges. This superior uniformity makes packages stronger. Breakage is minimized. Your product gets better protection in transit, storage and store. No aging or yellowing. You get longer shelf life.

Write now—or use the information request tag below for details.

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VISQUEEN *film—first and foremost polyethylene film.*
A product of the long experience and outstanding research of
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VISQUEEN

TRADEMARK

FILM

Gives You

BODY

"AUTOMATIC PACKAGING was made possible and more economical for 'Stayon' fitted crib sheets due in large part to VISQUEEN 'Q' film's superior stiffness and body. Production was speeded. Downtime eliminated. More efficient output per man hour achieved. VISQUEEN 'Q' film's greater uniformity of thickness made a stronger package—and cut breakage loss. Packaging end costs were cut considerably by VISQUEEN 'Q' film's superior quality. Crystal Tube of Chicago fabricates and prints our packages of VISQUEEN film."

Marvin Coburn
Stayon Products Inc.
Easley, S. C.

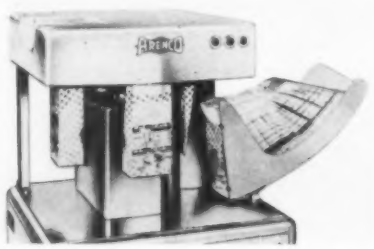
VISQUEEN and UNION CARBIDE are registered trademarks of UNION CARBIDE *Corporation*

Equipment & Materials *(continued)*

application to paper and board to give them adequate grease-proofness for use in the packaging of such products as baked goods and fresh or prepared meats. The company points out that the new coating, which can be applied with a conventional reverse roll coater, will make improved paper and board packages at satisfactory production rates. Other cited benefits of the material are superior toughness and abrasion resistance. *Allied Chemical Corp., Semet-Solvay Petrochemical Div., 40 Rector St., New York 6.*

Turret-action bag-filling machine

Arenco has developed a new bag-feeding, opening and filling machine that consists basically of a bag magazine and a rotary four-station turret. Operating at reported speeds of up to 35 fills per minute, the new VUF unit is designed for use in packaging such products as cookies, ground coffee, flaked cereals and similar small, lightweight products. In the machine's fully automatic operation, bags are removed one at a time by suction from the magazine and affixed to the first of the four stations (at right in the photo), where the bag top is opened. As the turret rotates, the bag moves to station two, where an air blast opens the bag fully; and then to station three, where filling takes place and the bag is released for sealing and subsequent operations. (The bag-holding unit is empty at station four.) Labor savings are among the advantages cited for the new machine. Further details are available from the supplier. *Arenco Machine Co., Inc., 25 W. 43 St., New York 36.*



Adjustable product labeler

Derby Sealers reports that an improved model of its Dispens-A-Ply labeling machine automatically applies pressure-sensitive labels directly to items of varying size and shape, such as blank bottle caps and pre-wrapped packages of candy, foods and stationery. The new conveyor-line unit features an adjustable head mechanism that can be raised, lowered or positioned horizontally, depending on the size and shape of the object to be labeled. It will accommodate labels up to 3 in. wide, reports the firm. *Derby Sealers, Inc., Derby, Conn.*

Table-model vacuum-forming machine

A table-model vacuum-forming machine designed to handle either straight or draped forming of plastic sheet materials is now available from Plast-O-Craft. The machine, which has an 11-by-12-in. forming area, can be sheet-fed or roll-fed. Heating is by an infra-red system. For higher production speeds, the unit is equipped with a high-speed electric pump. *Plast-O-Craft Co., Inc., 503 McCarter Hwy., Newark.*

New marker offers positive registration

An improved model of its automatic Whippet conveyor-line case marker has been introduced by Industrial Marking Equipment. According to the supplier, exact-register, no-smear marking of data on boxes or cartons is assured by a locking cam that permits regulation of the printing drum throughout its full 360-deg. travel. The friction-driven, self-inking attachment is automatically geared to the speed of the line. *Industrial Marking Equipment Co., Inc., 655 Berriman St., Brooklyn 8.*

Food tray increases product shelf life

Designed for use in overwrapping applications, a boxboard tray that is reported to increase by 50% the shelf life of food products containing fats and oils has been developed by Continental Can. Called the "Flav-O-Tainer," the tray is fabricated from solid bleached sulphate. It is claimed to provide odorless, non-toxic protection against rancidity. However, it must be overwrapped so that the oxidation-retarding ingredients will have maximum effectiveness, the supplier points out. *Continental Can Co., Boxboard & Folding Carton Div., 100 E. 42 St., New York 17.*

Improved cutting and creasing press

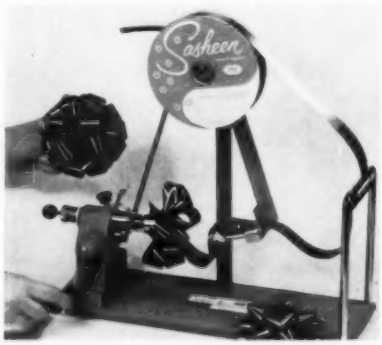
Thomson-National Press has introduced a new and stronger cutting and creasing press with a die-cutting load of 80 tons. Called the 28 x 41 DM (double micrometer), the unit has increased die-cutting capacity because of its heavier steel platen, a driven platen shaft and helical gears, the supplier says. The machine's design allows for impression adjustments in thousandths of an inch. A hinged cutting plate permits make-ready corrections without removing the plate from the press. *Thomson-National Press Co., Franklin, Mass.*

Machine ties wide bundles

New from B. H. Bunn is a slant-frame tying machine designed especially for wide bundles, such as stacked corrugated-box panels. The bundle to be tied is placed on the waist-high tying table, then the operator actuates a foot switch. A revolving arm carrying twine quickly encircles the bundle, a knotter attachment ties a double-loop, non-slip knot, and the twine is cut. Twine tension is adjusted automatically. According to the supplier, twine savings are effected because the machine uses exactly enough twine to do the job. *B. H. Bunn Co., 7605 Vincennes Ave., Chicago 20.*

Production-speed bow maker

A semi-automatic bow-making machine reported to be capable of producing up to 300 decorative bows per hour is offered by Minnesota Mining. Called the S71, the machine is claimed to be the first of its kind that can produce ready-to-use bows at production-line speeds, resulting in lower-cost production gift wrapping. (See "Bows in the Big Time," MODERN PACKAGING, April, 1959, p. 188). The unit produces two kinds of bow. Other advantages cited for the machine include: consistency in bow appearance, each being the same size as the one before; consistency in production and savings in ribbon material, since each bow produced contains exactly the same amount of material. The machine measures 17 in. long by 10 in. wide by 18 in. high. It is said to be simple to operate. *Minnesota Mining & Mfg. Co., 900 Bush Ave., St. Paul 6.*



Automatic bottle corking

An automatic machine for applying corks to wine and liquor bottles at reported speeds of more than 100 per minute is available from Biner-Ellison. Equipped with a hopper that holds several thousand corks, the straight corker is geared to meet any production requirement, says the supplier. *Biner-Ellison Machinery Corp., 1101 N. Main St., Los Angeles 12.*

Film-bag-and-carton milk dispenser

A disposable heavy-gauge polyethylene bag and corrugated container combination, designed for use in institutional milk-dispensing machines, is being introduced by Container Corp. Tagged the Concora Dispenser Pack, the unit offers dairies a packaging-cost saving of up to 30%, says the supplier. Bags

(Continued on page 120)

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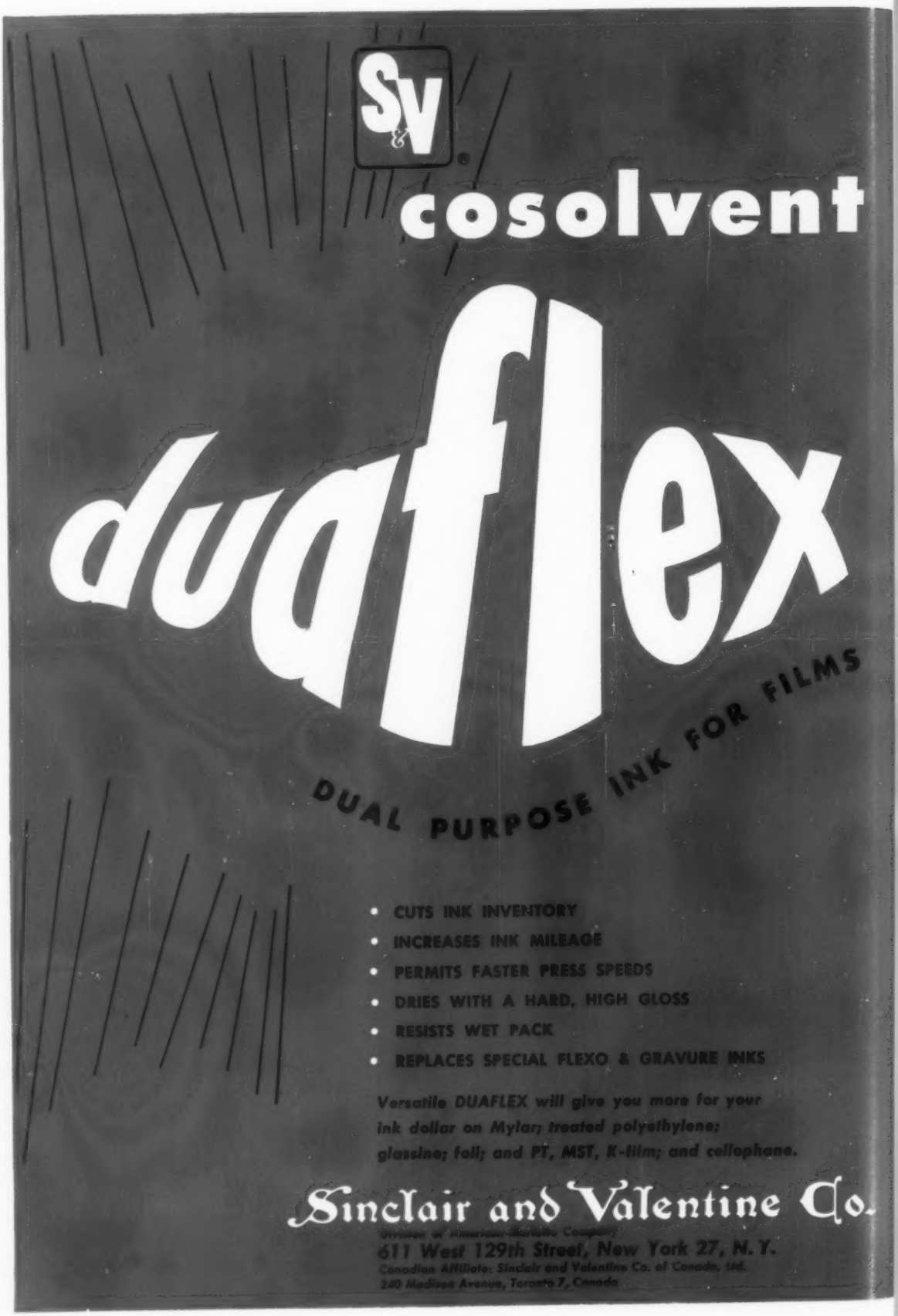
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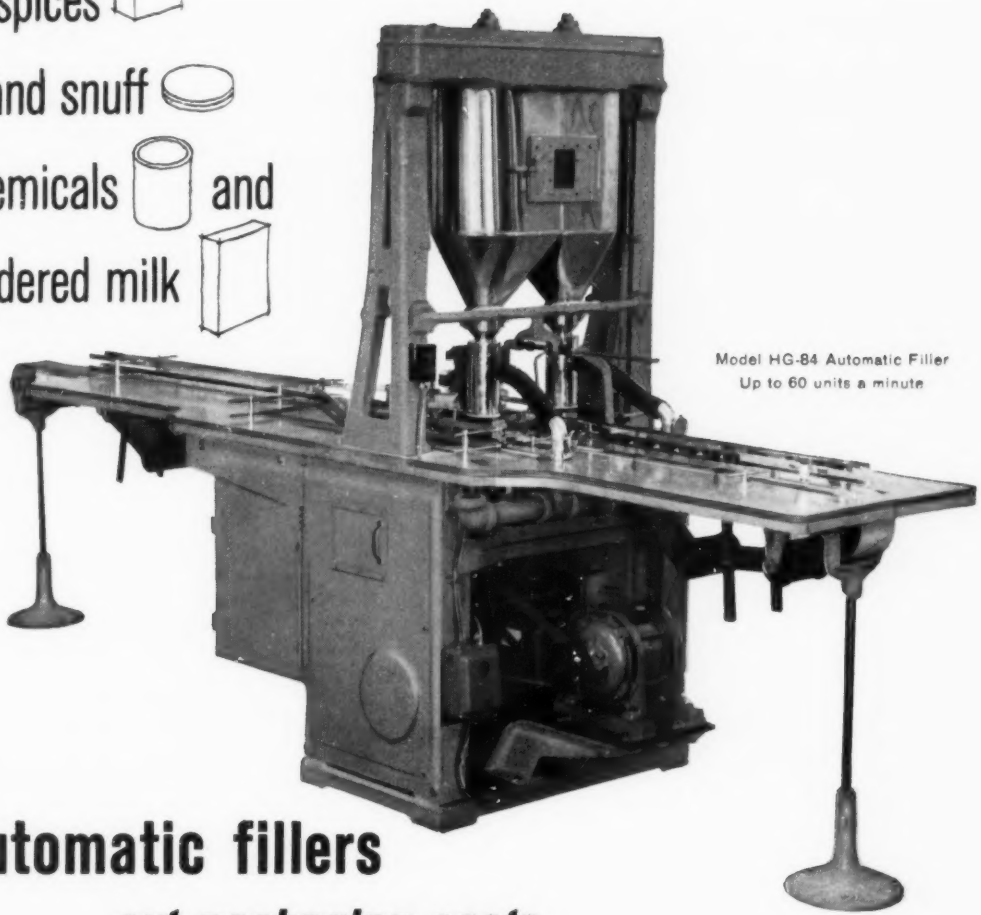

Model HG-84 Automatic Filler
Up to 60 units a minute

S&S Automatic fillers

cut packaging costs of "hard-to-handle" products!

If your product is a sticky or dusty powder, hard-to-handle flakes or granules . . . if you package in cans, jars, boxes or cartons . . . if you want filling accuracy of plus or minus 1% for most products . . . then you can reduce your packaging costs with the versatile Stokes & Smith line of automatic high speed fillers.

Three different filling methods are available, depending on the characteristics of your product . . . volumetric set-time, gross weighing or combination auger-vacuum. Each method delivers accurate fill automatically through a controlled auger feed. Changeover from one product or package size to another is quick and simple. Container size ranges from 1½" to 6" wide, 1½" to 4" thick, 1½" to 8" high.

Multiple-station tandem fillers are also available for speeds of up to 145 units per minute. All models require only one attendant to feed.

A few of the many companies who have purchased S&S high speed automatic fillers

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New from International Paper!

New grease-resistant **KREOCOAT** by International Paper is 5 ways better than laminated bleached board

(—and one of them is, it's cheaper!)

KREOCOAT is a dramatic new grease-resistant solid bleached board. It is already being used to package such products as frozen chicken, cookies, bacon and other meats, and brown 'n serve baked goods. Independent box makers, particularly, find this highly printable machine-coated board ideal for today's competitive conditions.

Here's why International Paper's Kreocoat is better than laminated board:

1. There's no curl. Kreocoat lies flat. Its coating is an *integral* part of the board. It can't delaminate—ever!

2. Less inventory. Kreocoat's *versatility* lets you cut your inventory. You no longer have to tie up dollars and costly warehouse space to stock both laminates and other boards.

3. Less handling. Kreocoat comes to you ready for converting. There is no laminating operation—and Kreocoat can be glued with conventional adhesives.

4. Easily salvaged. Because Kreocoat is made from 100% virgin wood fibre, it can be reclaimed right along with your other solid sulphate waste.

5. Lower cost. Kreocoat is not only cheaper to buy, it is also cheaper to store, cheaper to convert, cheaper to salvage.

Contact your International Paper salesman for samples and information.

Fine Paper & Bleached Board Division **INTERNATIONAL PAPER** New York 17, N. Y.

TULOX®
EXTRUDED
PLASTICS,
INC.

General Offices: Norwalk, Connecticut
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A fair question . . . because shape is often the "secret ingredient" in an outstanding package design.

Here, for example, are five famous products . . . each distinctively presented in a different shaped Tulox container. Shape has contributed to the success of these packages in effective display and product-brand identification. Shape has also permitted "tailoring" the container to the product in each case to assure protection, for convenient insertion or removal, to facilitate storage as well as shelf or counter arrangement.

Only Tulox Semi-Rigid Extruded Plastic Containers permit so wide a selection of these and other attractive, practical shapes and sizes. Tulox is available crystal clear or in brilliant colors, printed or plain and with an equally wide choice of colored closures . . . also comes in the form of sleeves, sheaths or scabbards and may be combined effectively with inserts of other materials.

Furthermore, unique precision production methods permit development of these unusual quality packages, on a volume basis, at a cost often 'way below that of less attractive alternatives. If you would like to see your product in such good company, call upon us for a study of the possibilities.

Semi-Rigid Seamless Plastic Packages

Sounding Board

QUESTION OF THE MONTH:

What packaging problems do you find in supermarket selling and what are you doing to meet them?—Part 2

Selling to and through supermarkets seems to pose as many problems for packagers and to suggest as varied solutions as could be expected from the various combinations of markets, products and ingenuity involved. In fact, when we put this Question of the Month to packagers, their response was so overwhelming that we have had to publish the answers in two issues. The first group of replies appeared in our April issue, page 67. Following are the remaining answers to this provocative question so important to all packagers producing goods for supermarkets or any self-service retail outlets:

Leonard Harrison
Sales Manager
Topps Chewing Gum, Inc.

Design of a package for selling bubble gum through supermarkets presents the problem of appealing to three basic audiences.

First, since shelf space is at a considerable premium in the supermarket, our package must be designed so that it appeals to the candy buyer. It must have sufficiently provocative sales appeal inherent in its appearance so that it immediately telegraphs to the buyer that here is an item that will "move."

Once on the shelf, the bubble-gum package must appeal to two markets: the adult and the child. It must, we feel, provide a child with something that he wants very much. It must also have "gift" value to stimulate the parent into bringing it home to the youngster as something extra special.

We solved these problems by developing a window package of Bazooka Bubble Gum (brought out only last month) that ties in with another Topps product which has enjoyed phenomenal success for many years: Baseball Picture Cards.

The new supermarket package of Bazooka Gum features a giant-size baseball card printed in four colors on the back of the package. The offer of the baseball card on the back of the package is pointed up by a colorful cellophane overwrap which also makes a second offer: The youngster can send in five of the wrappers in the box (packages contain either 20 or 25 pieces of bubble gum) and receive free a 15-in. felt pennant of his favorite baseball team.

The new package has appeal to all of the markets presented with the problem, *plus* one additional factor: its timeliness is keyed to the baseball season.

William H. Tirrell, *Vice President, The Barbasol Co.:* Shelf space today, to be obvious, is at a premium never before experienced in outlets. What the package looks like on the shelf, if it is fortunate enough to get there, is of constant concern to the manufacturer, especially to the smaller independent one with a limited advertising budget. The impression his package gives is, in many cases, the final and perhaps only influence he can exert on the consumer.

If his package is fairly well known with traditional color such as ours, he must face the problem of modernizing its appearance. He may end up losing his color franchise with too radical a change. If his major market is male, he must balance the rugged male attractiveness of a package against the well-known fact that women do most of the buying. Should he make his package more attractive to women who may object to the original design and appearance because of how the package looks in a bathroom setting? It is possible that by adhering to the woman appeal of the package, he repels the man. A compromise always seems to be indicated.

Does the package stand out on the shelf? Are the colors distinctive? If they are distinctive, are they too gaudy or too "buckeye"? Is it the proper size?

The final answer to all questions is the consumer herself. If she picked up your package once but did not come back for more, better take a look at it.

Edward J. Sharpless
President
Kennett Canning Co.

For some years, the packager has respected the use of quality labels, advertising, merchandising and point-of-sale display to help sell his product. Yet, with the tremendous growth of supermarkets, hundreds of new products disappear from super shelves each year be-

cause of their inability to sell the consumer on sight. Statistics show that the supermarket shopper passes as many as 500 competing packages between the meat and produce department. Therefore, the package has to capture her immediate fancy in order to make her stop, pick it up and—most important—put it in her shopping basket instead of back on the shelf.

For this reason, we feel that designing a label expressly for the consumer and test marketing it for her reaction is one of the most important phases of our marketing program. Our new Fanfare mushroom brand has a clean, full-color, glossy label with quickly identifiable design. The design includes a pixie trademark and an emphatic gold seal stating the prime copy point: Fanfare is packed in its own juice. Reproduction of product color is exact. We are sticklers on the policy of selling the consumer the truth about our product, with no exaggerations. Sales results that have been achieved by our product have already proved out this policy.

George A. Percy
Advertising Manager
Bauer & Black Div.
The Kendall Co.

The problems which we have encountered in the packaging of our products for supermarket sale largely fall in three major areas—physical design, product identification, service efficiency.

Physical design. The package form must be of such a nature that it can be properly displayed on the shelf area. For example, when we first packaged cotton balls in transparent plastic bags, we used a punched saddle at the top for pegboard display. Not all stores use pegboard, so subsequently we added U-boards, top and bottom, so that the packages would not only stand, but also stack.

Curad bandages were in metal containers that would not stack properly. We designed the top of the can to interlock in the bottom of another can. This also gave us more facings.

Adhesive tape is usually in a round container—will stack only one way. When we brought out Curad plastic tape we put it in a flat, transparent plastic dispensing package that will stack on end or when lying flat.

Blue-Jay foot products are in small, lightweight packages. They are too light to stand on end, too narrow to have adequate display lying down. We designed a hanger end for pegboard or wire-prong display.

Product identification. Health and beauty aids are comparatively new in supermarkets and product names are insufficient for shopper identification. As a result, we have resorted to illustrating the product on as many sides as possible and occasionally on the top. Where practical, we are also using rigid or soft transparent plastics, i.e., for Curad tape, new Blue-Jay corn pad treatment, Pom-Pom and Curity cotton balls.

Service efficiency. To facilitate store handling and/or point-of-sale merchandising: (1) merchandise is either pre-priced or packed in specially designed packers to facilitate price stamping, (2) corrugated with tear-string opening is used; these containers also serve as mass displays, (3) special programs have merchandise pre-priced, pre-packed in special corrugated display shippers that can be set up in one minute and (4) special combination offers are banded; the band gives details of the offer so that the combination can be effectively displayed on the shelf when special display space is not available.

These problems and their solutions are applicable to any heavy traffic, self-service retail outlet.

Robert S. Larkin
Director, Chain Store Sales
Philip Morris, Inc.

Good cigarette package and carton design is one of the basic fundamental requirements that will keep supermarket merchandising in balance against deals and gimmicks.

In a truly competitive display situation where the Philip Morris, Inc., brands—Philip Morris, Marlboro, Parliament and Benson & Hedges—must vie with the products of other cigarette makers, the question is one of quick, attractive identity for our products.

The use of gimmicks may distort the sales picture temporarily, penalize and delay the growth of some brands. The use of such practices clearly has gotten out of hand and experienced merchandisers know it.

A return to emphasis on product quality, effectively packaged, priced and advertised to deliver good consumer value and fair dealer profit is very much in order.

Since supermarket cigarette selling basically is one of selling by the carton, the important point is whether the carton displays and dramatizes the brand image as strongly as possible. This is the public concept built up for the individual brand through extensive and costly advertising, point-of-sale promotion and publicity. Should the carton fail to live up to or be a part of this image, then everything the products' manufacturer has tried to do with national and local media advertising, promotion and publicity is destroyed at a most crucial time—the point of sale!

At Philip Morris, Inc. we attempt to establish easily recognizable continuity between our product advertising and the individual package of cigarettes and their 10-pack carton, the supermarket unit of sale. For example, the Marlboro carton features both the distinctive Marlboro Man made famous by the cigarette's broad-scale advertising and displays, and it also employs the equally well known color design of the individual Marlboro flip-top box directly on the carton itself. This, we feel, ties in the advertising, the displays and in-store promotions, and brings them right to the consumer point of impact: the cigarette shelf where the purchase is made.

Additionally, of course, we are continually experimenting with the printed surfaces of the cartons in order to achieve the best possible and most attractively printed package for our cigarettes.

WHY PUT A ROUND PRODUCT IN A SQUARE PACKAGE?

Let Keyes Product Development Engineers Show You How Molded Contour Packaging Can Cut Costs, Breakage

Molded pulp is the one inexpensive packaging material that combines rigidity with remarkable cushioning properties. Contour packaging eliminates fillers and dividers, cuts packing costs to a minimum. Molded pulp contour packaging facilitates automation... reduces cubage, saving valuable warehouse and shipping space.

Keyes molded pulp contour packaging has solved shipping and breakage problems for dozens of hard-to-package products including eggs, glassware, fruit, lamps and electrical parts. This experience, together with complete, modern production facilities means that Keyes can develop and produce for you custom designed packaging that cuts costs, reduces breakage.

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KEYES
MOLDED PRODUCTS

How bundling fraction-of-case units with Avisco® cellophane can help your retailers

Retailers benefit in many ways when they receive fraction-of-case units of your product bundled in Avisco cellophane. This modern packaging film offers many time-saving and sales-building advantages over the paper wraps and boxes traditionally used for this purpose.

Cellophane enables retailers to use bundles as shelf displays without unwrapping. Bundles of a product can be conveniently stored next to individual packages remaining on the shelf. Retailers can see at a glance how much stock they have and what needs to be ordered. Cellophane bundling also facilitates mass displays during special promotions. In some instances it has even helped retailers sell entire bundled quantities to consumers.

Not only does the transparency of cellophane reveal the full impact of your consumer package—but its sparkle adds dramatic sales appeal. What's more, cellophane is unmatched when retention of freshness is essential. It controls air and moisture and keeps products free from dust. As a matter of fact, people everywhere have come to associate cellophane with freshness and cleanliness.

In addition to increasing the shelf life and sales appeal of a product for the retailer, cellophane eliminates the disposal problem caused by bulky cartons and wraps.

What about the cost? Bundling with Avisco cellophane can offer substantial savings. It eliminates the need for printed and labeled paper wraps or boxes; operates fast and efficiently on packaging machines; seals easier and more securely with heat. And cellophane substantially reduces packaging material inventory and the storage space it requires.

Cellophane bundling also becomes an extra selling tool for you during special promotions. For example, you can use printed cellophane to explain deals and display ideas to your retailers.

We offer a complete packaging service to assist you, and demonstrate how Avisco cellophane, plain or printed, will answer your bundling requirements better and more economically than any other material. Phone or write us for an appointment with our representative in your area or a selected cellophane converter specializing in your field.

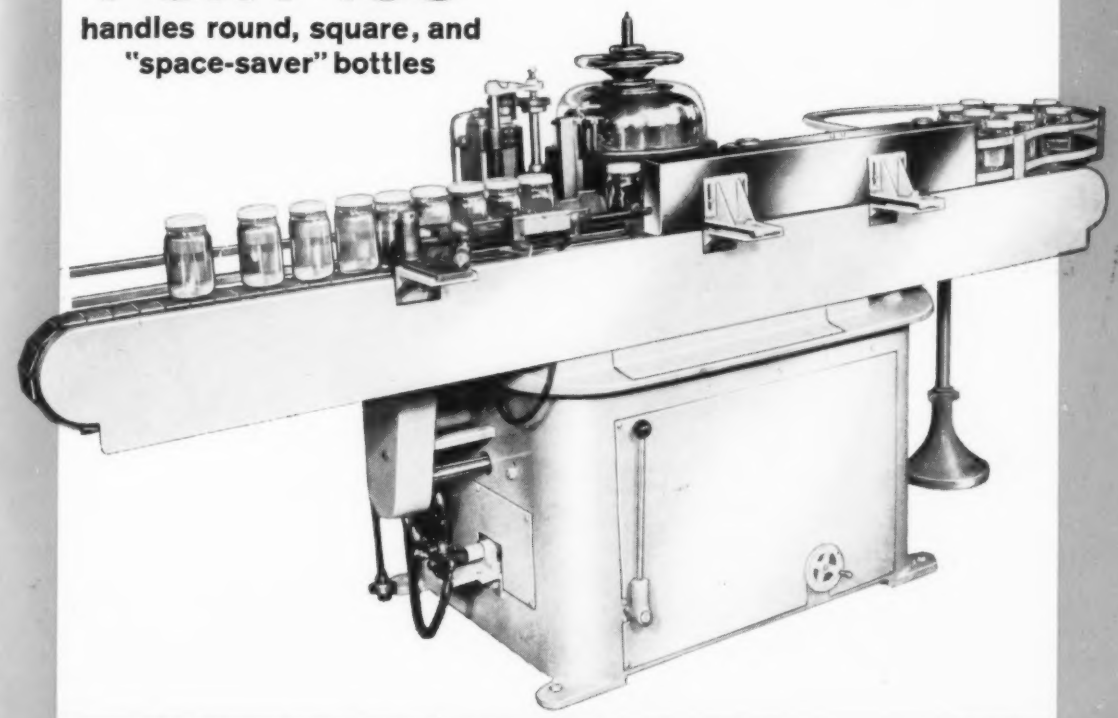
Learn more about cellophane bundling. Send for this FREE handbook—"Cellophane Bundling . . . newest concept in distribution packaging."

AVISCO

AMERICAN VISCOSE CORPORATION, FILM DIVISION, 1617 PENNSYLVANIA BOULEVARD, PHILADELPHIA 3, PENNSYLVANIA

PONY 165

handles round, square, and "space-saver" bottles



165-per-minute suction labeler improves bottle appearance, reduces operating costs

The space-saving Pony 165 combines low operating cost with high quality labeling. Its basic 165-per-minute speed can be stepped up, with modifications, to as high as 240.

The Pony 165 uses suction for accurate label placement. Micro-glue control prevents seepage. Shockless straight-line handling ends glass breakage. Rolling pressure action provides a tight, edge-to-edge bond. And the non-stop, rotary single-head machine needs only a minimum of maintenance.

The Pony 165 handles round, square and "space-saver" bottles; spot, wrap-around and three-panel labels. It accommodates vials to gallons, label sizes from 5½" x 5½" to as small as 1⅛" wide and ½" high. Only 20 minutes for label changes, five minutes for bottles. Prices begin at approximately $9,000.

Ask for new Pony 165 Bulletin.

PACKER NOW USING TWO PONY 165's

Old Virginia Packing Company, Inc., Front Royal, Va., uses two Pony 165's to provide quality labeling for its line of quality preserves and jellies.

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Diederichs & Griffin Co.
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Charlotte, North Carolina
The Ison Co.
1232 W. Morehead St.

Chicago, Illinois
Diederichs & Griffin Co.
6215 W. Touhy Ave.

Cincinnati, Ohio
Charles Wall
8955 Woodview Drive

Dallas, Texas
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2503 W. Mockingbird Lane

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Detroit, Michigan
Diederichs & Griffin Co.
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Stiles Conveyors & Transmissions Co.
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Needham, Massachusetts (Boston)
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210 Mississippi St.

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INDUSTRIES, INC.
MECHANICAL DIVISION
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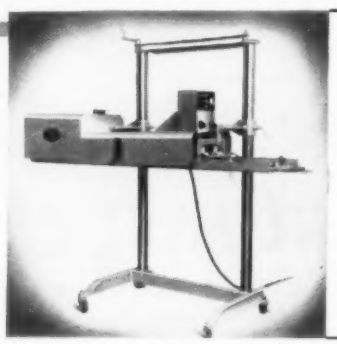

Ask about the new

DOUGHBOY SEALER-GLUER

For closing multi-wall laminated Kraft bags. Makes a perfect airtight moisture-proof seal. Fast and efficient, it seals the coated Kraft stock and glues the fold-over. Write for information and folder.

Paramount Labels **TRIGGER** the **pick-it-up impulse**

Something *clicks* — and the *browsing shopper reaches for a package*. When she picks it up 99% of the sales job is done. Nothing *triggers that click* as fast and regularly as the *merchandising flair* of Paramount labels. The *reason* is Paramount's design, color and meticulous attention to every production detail. The result is labels having maximum *sales impact* which *produces buying action*.

Whatever your labeling project, consult Paramount. Paramount's design service is free — Paramount's labels make you money.

PARAMOUNT PAPER PRODUCTS COMPANY

4401 N. 23rd St., Omaha 10, Nebr. In Canada, 218 Front St. E., Toronto

Label Manufacturers — Specialty Tape Printers

The case of the bare beer bottles

FEARLESS FULLER: I finished a very interesting case over the weekend, Miss Watson.

MISS WATSON: Beer or ale?

FEARLESS FULLER: Neither, although the scene of my latest adventure was the Schnitzlebank Brewing Company.

MISS WATSON: They were having problems?

FEARLESS FULLER: Yes. It seems they were using an adhesive other than Fuller's, and were having trouble with their new foil bottle labels.

MISS WATSON: What kind of trouble?

FEARLESS FULLER: Well, when their bottling line was at high speed, they had skipping problems, and every so often a bottle would come through completely bare.

MISS WATSON: How chilling. Did they try slowing the bottling line down?

FEARLESS FULLER: Yes, but they still had trouble with "flaggers"

MISS WATSON: "Flaggers"?

FEARLESS FULLER: Yes, that's when an end or corner of a label tears loose and sticks up.

MISS WATSON: How did you solve the problem, Fearless?

FEARLESS FULLER: I had them switch to Fuller's casein ice-proof adhesive #1303. It handles all types of label stock including foil. It gives top performance at high speed without stringing or throwing, and eliminates skipping and flagging.

MISS WATSON: Aha, thanks to Fearless Fuller those villainous bottles are foiled again.

FEARLESS FULLER: You might put it that way.

MISS WATSON: Oh Fearless, you're the most!

FEARLESS FULLER: Elementary, my dear Miss Watson. A Fuller man always knows the solution to adhesive problems.

Your Fuller man is ready with the correct solutions on any adhesive problems for you, too. Contact your nearby plant.

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World Report

Abstracts from foreign packaging magazines

RUSSIA

The paper trade in the USSR

Figures concerning the paper and paperboard situation in Russia are reported in the Russian journal, *The Paper Industry*. After the revolution, according to the report, there were in Russia a total of 38 small paper mills, six paperboard mills and seven factories making pulp. The annual production of these mills amounted to 197,000 tons of paper, 21,000 tons of paperboard and 41,000 tons of pulp. All the newsprint had to be imported and this with a timber area four times larger than Canada, five times larger than the United States and 17 times bigger than Scandinavia. In 1932 the manufacture of papermaking machines was started and in 1941 Russia had 27 modern machines running. Production rate was reported as follows: 1945—321,000 tons; 1950—1,193,000 tons; 1955—1,962,000 tons. A potential is forecast for 1960 of 2,720,000 tons of paper and 1,225,000 tons of paperboard. Of this, 500,000 tons will be newsprint; 360,000 tons, wrapping paper; 300,000 tons, sulphate kraft. A production of 2,900,000 tons of chemical pulp (including 270,000 tons for the rayon industry) and 1,180,000 tons of mechanical pulp should be ample for the needs of the paper industry, with probably something to spare for export, according to this report. *(Ed. Note—For comparison, annual U.S. production of paper is 31 million tons—or approximately 430 lbs. per capita—almost eight times that of Russia.)*

GERMANY

Need for training package specialists

Describing the School of Packaging at Michigan State College in the United States, Count Lambsdorff, who is managing director in Hamburg of an organization dealing with packaging materials for preservation of foodstuffs, points up the urgent need for a similar educational center to provide technical packaging training in West Germany. In *Die Neue Verpackung* (Berlin) he writes: "Although in Germany technical courses and schools take care of training in paper making and converting plastics and metals, there is not a single educational center for young people to gather knowledge in the techniques of packaging, packaging machinery and materials. Something should be done to fill this gap. There are many enterprises in which a trained man would be worth twice the money he now earns. Although we do not want an institution costing a million pounds, something should be started, be it in a shed."

The editor of *Die Neue Verpackung* agrees. He receives so many inquiries from firms asking for packaging specialists and has no idea where to find them, he says.

ENGLAND

More about viscose laminations on paper and board

After numerous experiments, both in the United States and in Europe, a reportedly new and successful method of laminating viscose film to paper and board stock has evolved in England, according to British *Packaging*. Supposedly it overcomes previous problems of achieving a permanent bond efficient enough to withstand ordinary handling and which is unaffected by atmospheric changes. By the new method, an English firm is offering a laminate of colored or transparent viscose film on paper or board, presently available in red, gold or silver. The process imparts a high and permanent gloss to the surface, which can be printed by any process applicable to moisture-proof cellophane. The laminated paper and board are available in gauges from 0.004 to 0.016 in. and are said not to crack even when folded to 180 deg. as in normal folding-box constructions. And the layers of the lamination reportedly are so well balanced that they lie flat without curling. The new material is expected to find its best outlet in the manufacture of high-quality cartons, fancy rigid boxes and display pieces.

ITALY

Italian packagers plan cyclical program

The Eighth Packaging Exposition at the 37th Padua Fair will be held in that Italian city, May 30 to June 14. Due to the rapid expansion of packaging during the last few years, according to the *Journal* of the British Institute of Packaging, the Fair management has decided to divide the Padua packaging pavilion into separate sections, based on a cyclical program instead of trying to cover every aspect of packaging each year. The three-year program, therefore, has been arranged by the Fair management and the Italian Institute of Packaging as follows:

1959—Specialized packaging for food and domestic products, including machinery.

1960—Specialized industrial packaging for use in land, sea and air transportation.

1961—Specialized single and multiple containers and packaging for internal transportation, with special reference to the coordination between road and rail transport.

As a special feature on food packaging this year, the Fair is organizing a large model supermarket to illustrate the complete range of specialized packaging for perishable foods.

It is anticipated that the cycle will be repeated in the subsequent three-year period, 1962-1964, except in 1962, when the program will cover packaging for pharmaceuticals, cosmetics and clothing.

FRANCE

New polymer based on acetate resins

Reportedly, a new polymer based on acetate resins, designated as polyoxy methylene, possesses remarkable physical and mechanical properties, a high resistance to shock and impact, even when strains are rapidly repeated, according to *Plastiques Information* (France). Many of the classic formulae applicable to metals are applicable to this material, the article states, pointing out that it can be used to substitute for such mechanical parts as link couplings, eccentrics and the like. Characteristics may be varied within a certain range. Practical applications have not yet been fully worked out, but the material is suggested for use on standard injection-molding equipment, designed with molds calculated to use to advantage the properties of high fatigue resistance, dimensional stability, resilience, low creep, tensile strength and rigidity. Molding is effected at temperatures around 400 deg. F. The material can also be satisfactorily extruded to form tubes and sections. It has already been used for calculating machines, sewing machines, ventilators, window gears and reservoir tanks.

YUGOSLAVIA

Produces its own cellulose film

Yugoslavia is no longer dependent on imports of cellophane, according to *Emballages* (France), as the result of production of this material by a firm in that country now supplying not only enough for the country's own needs, but 100 tons surplus, available for export. Reportedly, 30 stores will be operating on a self-service basis in Yugoslavia by the end of 1959 and it

is estimated that they will use more than 400 of the country's forecast production of 500 tons of cellophane.

FRANCE

Third in tinplate production

In 1957, France produced 466,000 tons of tinplate, placing that country as third in rank (after the United States and Great Britain), according to the French publication, *Emballages*. Fifty per cent of the output was exported to 52 countries. It should be kept in mind, the article states, that French tinplate comprises more than 99% indigenous raw materials.

CANADA

Pilferage a big problem to supermarkets

In Canadian supermarkets pilferage has risen to such a point that the problem of searching for pilferproof package constructions could be one of the biggest tasks of Canadian packagers over the next few years, according to *Canadian Packaging*. Supermarkets want margarine packages that prevent the exchanging of the sleeve of a margarine package with the sleeve on a butter package. They want overwrapped tea packages that prevent the light-fingered shopper from going home with a pocketful of loose tea bags. They want more items that are carded to add bulk and no more beautiful pocket-sized packages of nylon hosiery that leave stores without payment.

FRANCE

"Flying Saucer" closure that's tamperproof

An interesting closure that is tamperproof, yet reclosable for use by the consumer is described in *Emballages* (France) as a solution to the problem of bottling non-carbonated liquids. Made of aluminum foil and molded plastic (probably polyethylene), it is called "Flying Saucer," because of its shape. The tightly secured closure is made with a slit in the tamperproof aluminum foil that can be torn off easily, revealing a shallow plastic friction plug which is replaceable to reseal contents in the home. The closure is applied by a special machine, reportedly at the rate of 4,000 per hour, and will accommodate bottles of a wide variety of heights and mouth diameters.

ENGLAND

British Institute of Packaging Journal

A forward step has been taken by the Institute of Packaging in Great Britain by the establishment of a new and larger format for its *Journal* which, according to Norman F. Phillips, national chairman, will be published regularly hereafter on a bi-monthly basis. The revamped publication, as indicated by its January issue, will not only carry news about the Institute's activities, but significant articles on technical, merchandising and other aspects of packaging. The January issue carries a comprehensive article on the packaging of chemicals, discussions on the impact of self service, polyethylene laminates and the place of the package supplier in today's packaging economy.

THE NETHERLANDS

Dutch gift packaging

Designers looking for new ideas in gift packaging will find many suggestions in the February issue of *Packaging* (England), which carries an illustrated article on decorative Dutch packaging. Beyond the ubiquitous wooden shoe used as a container for chocolates are examples of how Delft-ware, ceramics and glass are being used as decorative containers for Bols Liqueurs. Pairing up ceramic figurine bottles in the shape of a Dutch girl and a Dutch boy, Bols adroitly encourages the sale of two decanters instead of one. Another glass bottle converts into a handsome candle stick. A package for Droste chocolate, intended for export sale, simulates a cancelled letter, complete with Dutch stamps. Also illustrated are box and paperboard constructions in unusual shapes.

ENGLAND

Mobile laboratory for testing paper

A London paper maker has introduced what is reportedly the first mobile laboratory in Great Britain, according to *Emballages* (France). The traveling laboratory is equipped with all the instruments and equipment for determining the chemical and physical characteristics of paper and is available to the paper firm's customers to solve their problems in the use of paper.

FRANCE

Guide to plastic forming techniques

Various techniques used in the forming of plastics materials are outlined in a brochure offered by Roon S.A. of Paris as a guide to methods of vacuum forming, drawing, etc., accompanied with a description of how a combination of the techniques may be used when necessary in packaging and display. The brochure is illustrated with photographs and diagrams.

FRANCE

Fractional packages for small families

Consumer studies showing the large number of small families and persons who live alone in France throw emphasis on fractional packaging, according to an article in *Emballages* (France). Among approximately 14 million households in France, 67% are composed of three persons or less, the article states. In 20% of these, there is one person; in 27%, there are two persons, and in 20%, three. Only 14% of all French families are composed of four persons and in 19%, there are five persons or more. The author sees in the fractional-packaging idea a way to help retailers maintain larger unit sales rather than catering to the smaller families with smaller packages.

AUSTRALIA-NEW ZEALAND

Price spots in package design

The need for price-mark spots that do not mar the impact of effective package design is pointed up by Leslie J. Buck, packaging engineer, in the packaging magazine published in Sydney. He lists suggestions for color treatments, positioning and stamping by the retailer that will make the price spot more acceptable to both manufacturer and retailer.

ENGLAND

Liquor in re-usable plastic shopping bags

An English plastics fabricator is promoting handsome re-usable shopping bags made of strong polyvinyl chloride sheeting, sewn and welded to withstand the weight of heavy bottles as a new idea for gift-packaging presentations of liquor. Gold stamping and other colorful printed treatments provide the handsome decorative effects. Sturdiness of the plastic assures long life for re-use as carry-alls. Smaller sizes are suggested for packaging toilet articles, sewing items and tools.

ENGLAND

Slogans on aluminum caps push bottled milk

In the effort to increase the sale of bottled milk in England a manufacturer of aluminum caps has hit upon the idea of making them attractive to children by printing them with popular slogans. According to *Emballages* (France), children are great collectors by nature, thus help the milk dealers to build brand loyalty and win new customers.

For additional information on any item, write: World Report Editor, MODERN PACKAGING, 575 Madison Ave., New York 2

Now in polyethylene! C. J. Patterson Co., of Kansas City, bakers of Holsum Bread, is just one of more than 75 leading bakeries now using Crown Zellerbach film made of Spencer Polyethylene resin.

First announced by Spencer and Crown Zellerbach in May, 1958 . . .

High-Speed Polyethylene Overwrap Sweeps America In Only One Year!

Just one year ago the Western Waxide Division of Crown Zellerbach Corporation and Spencer Chemical Company announced the first major break-through in high-speed, low-cost polyethylene breadwrap packaging. This announcement was made possible by: (1) a special medium density "Poly-Eth" Polyethylene resin developed by Spencer for chill roll casting of flat film; (2) a special low-cost overwrap conversion kit developed by Western Waxide for AMF—type wrapping machines.

The combination of a "Poly-Eth" medium density resin, plus Western Waxide's method of chill roll casting, provides the stiffness, gloss and clarity necessary for a successful transparent film breadwrap.

Today this new packaging development is being used by more than 75 bakers from coast to coast. In fact, so great is the demand for this special polyethylene film that production facilities are rapidly being increased. The reasons for this overwhelming demand are simple . . .

To the baker, polyethylene film means:

(1) Approximately 20% less packaging cost, compared with cellophane.

(2) Bread can be wrapped at standard production speeds.

(3) Up to two extra days' shelf life per loaf.

To the consumer, bread wrapped in polyethylene means:

(1) She gets fresher bread. She knows it, too, because the package even *feels* fresher.

(2) She can keep it fresh longer. The package closes tightly with a twist or fold of the film.

(3) It can be stored under refrigeration without the film becoming brittle.

To the packaging industry the success of this development means that the low cost and better protection of polyethylene overwrap are now available to packagers of a wide variety of products. For more information about the benefits to *your* products, mail the coupon below.

SPENCER CHEMICAL CO.
KANSAS CITY 5, MO.

Poly-Eth by SPENCER

MAIL THIS COUPON TODAY!

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Kansas City 5, Missouri

Please send me more information about the items checked:

☐ Crown Zellerbach overwrap conversion kit and polyethylene concept of bakery packaging.

☐ Chill roll cast film made of Spencer medium density resins.

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HERE are just a few

of the questions

your* 825-page

MODERN PACKAGING

Encyclopedia Issue

answers:

"How should a *packaging department* be set up? How do 44% of the food manufacturers do it?"

"What are the specific factors that must be taken into consideration when *planning a package?*"

"Does *waxed paper* offer good resistance to flavors, odors and gases? Does polyethylene-coated paper?"

"What's a simple way *of identifying* the various films?"

"Among paper packages, what are the unique advantages offered by *set-up boxes?*"

"Why are *styrene containers* now able to compete costwise with disposable treated-paper containers?"

"How does the *nitrogen-propelled aerosol* open new horizons for dentifrices, barbecue sauces, drugs, etc.?"

"In selecting the right *capping equipment*, when should a straight-line machine be selected? When can a straight-through hookup be used? What are the virtues of a 'synchronized line'?"

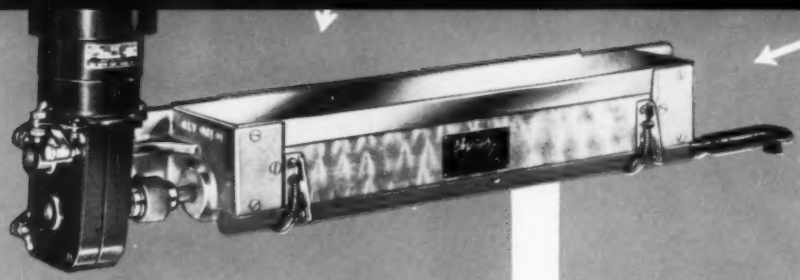
"What are the special advantages of *printing* by letterpress? Offset? Flexography? Roll leaf?

"What are the names of some *contract packagers* in northern New Jersey?"

"From which companies can *plastic bottles* be obtained?"

What's <u>your</u> question?

*The MODERN PACKAGING Encyclopedia Issue is the thirteenth issue of MODERN PACKAGING magazine—and is received by paid subscribers as part of their regular subscription. America's "mass packager" executives use it as their guide to package design, planning, production, and procurement.



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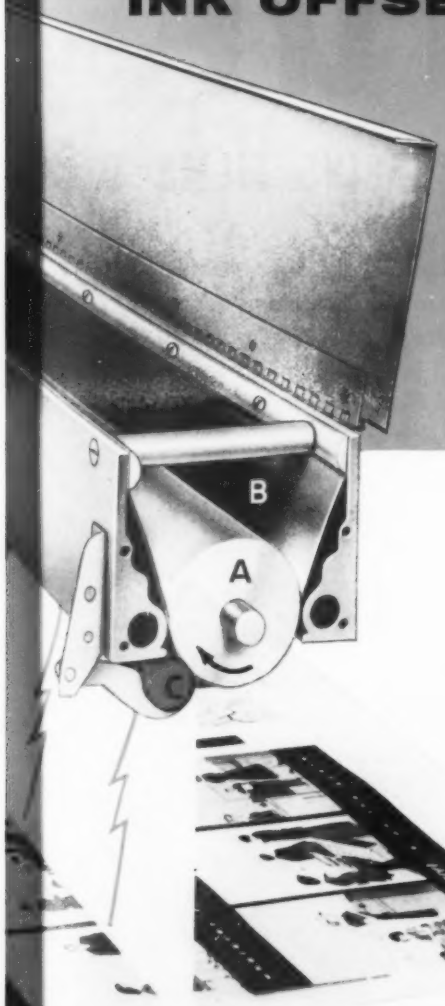

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Editorial Memo

Men and machines

Recently in these pages we reported a significant rise in imports of packaging machinery. The volume is still relatively small, but that it should be growing at all is a matter of some concern to U. S. builders of packaging machinery.

Why should this be?

There are probably several answers. There are specialized types not available from the standard lines of U. S. suppliers. There are excellent machines in Europe built to handle a medium volume of production—a range which U. S. makers have largely neglected. There is no denying the factor of low European wage rates.

But there's more. We venture to suggest that there is in the best of European packaging machinery a certain quality comparable to that which has popularized European automobiles. We mean the care for detail, the precision of fitting and finishing, the pride of personal workmanship by skilled mechanics which so often is lost over here in our assembly-line methods and our concentration on pushbutton tools.

Recently, one of our editors had occasion to visit the Stuttgart plant of Fr. Hesser Maschinenfabrik A.G., one of Germany's largest builders of packaging machinery. He was impressed not merely with the efficiency of the manufacturing departments, but particularly by the fact that one of the largest sections of the plant had been set aside as a training school for young mechanics—and we mean young.

Here boys as young as 14, after careful screening, are taken into a course which, in the field of mechanics, is the equivalent of a college education. They learn first how to handle simple metal tools such as files and hacksaws. They have classroom instruction on mechanical theory; they learn to read drawings and use measuring tools. They progress into simulated production work with machine tools. Finally, they have two years of real production work in the machine, subassembly and assembly shops of the plant. Meanwhile, academic studies are continued; each student must attend a trade school one day a week. After 3½ years, if he survives a series of stiff examinations, the student receives a diploma certifying him as a skilled mechanic.

This is not unusual; it is typical of European practice. Hesser invests a great deal of money in its training school, which usually has an enrollment of around 100 students, and it places no restrictions on the trainees. They can quit at any time and after graduation they can stay with the company or go elsewhere, as they please. Most of them stay.

We do not mean to suggest this as a system applicable to America. But we do think that in this little story is a ray of light as to why European machines are good—and some food for thought about the value of pride in workmanship.

The Editors

Modern Packaging, Executive-Editorial Offices, 575 Madison Ave., New York 22.

PAPER NEEDS THE "TOUCH OF TALENT"

When John James Audubon painted this water color of a young American bald eagle, he turned an ordinary piece of paper into a prized collector's item. But it took talent to do it.

It also takes talent to give you packaging designed to stimulate sales. You'll find Nashua talent with paper can help you package your products to "sell on sight" in today's serve-yourself market.

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NASHUA PACKAGING TALENTS AVAILABLE TO YOU

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- Co-ordinated Packaging
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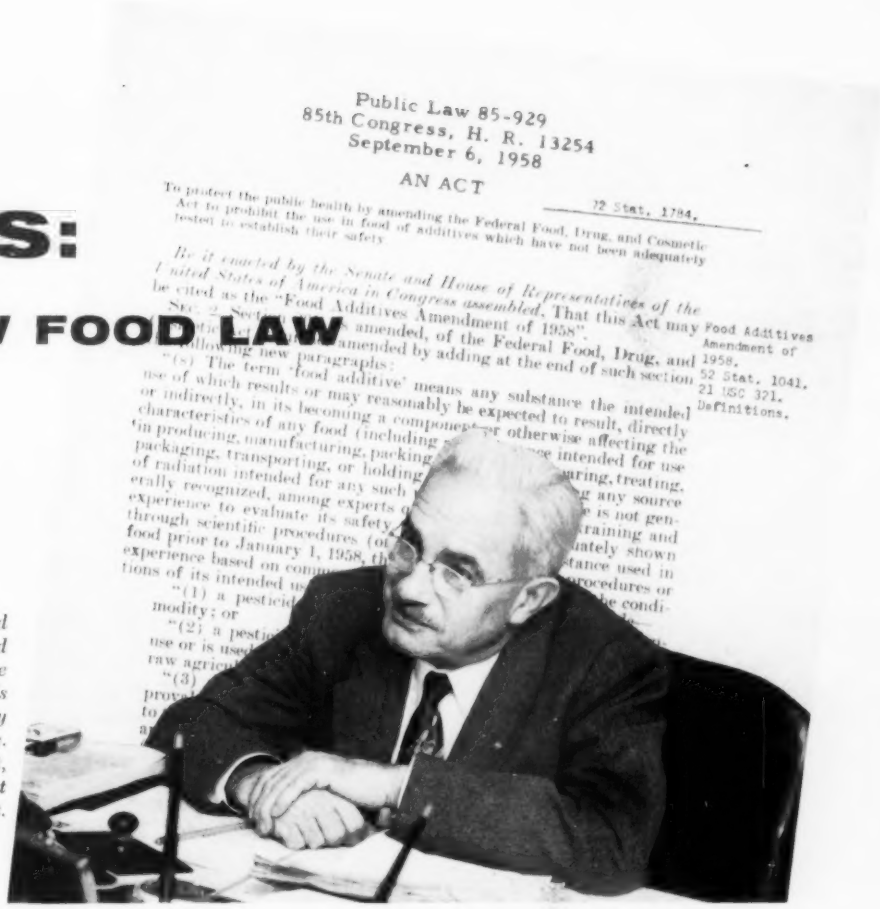
NASHUA

May 1959 Vol. 32 No. 9

MODERN PACKAGING

CRISIS:

THE NEW FOOD LAW



Public Law 85-929
85th Congress, H. R. 13254
September 6, 1958

AN ACT

72 Stat. 1784.

To protect the public health by amending the Federal Food, Drug, and Cosmetic Act to prohibit the use in food of additives which have not been adequately tested to establish their safety.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Food Additives Amendment of 1958".

Food Additives Amendment of 1958.
52 Stat. 1041.
21 USC 321.
Definitions.

Administrator *charged with enforcing the new Food Additives Amendment is the Food & Drug Administration's second in command, Deputy Commissioner John L. Harvey. First part of this amendment, which was signed last September, is now in effect.*

If the F&DA interprets literally the new Williams Amendment, it will throw food packaging into turmoil. Here are the startling facts about the additives law and its implications

The sharp teeth hidden behind the deceptively simple words of the new Food Additives Amendment to the Federal Food, Drug and Cosmetic Act are suddenly becoming evident to startled food packagers and suppliers. Although many have long believed that regulation of chemicals in packages and foods is desirable, the few who have caught up with the present situation are frankly alarmed by the many unanticipated aspects of the law as it is being interpreted by the Food & Drug Administration.

Basically, the new amendment (also known as the Williams Law) bans the use in food of untested additives. Packaging materials are immediately involved, because an "additive" is defined as any substance that may become part of or affect food—hence, a material that migrates to or combines chemically with food. The agency intends to take a very sharp look at *all* packaging materials— partic-

Commissioner Harvey is not particularly concerned about the cost to packagers, although it will be necessary to clear practically all of the food packaging materials now in use.

"There has been a tendency to exaggerate costs. Responsible firms already investigate their materials. Of course, the little niceties required by the new amendment will cost extra, but the large food companies will probably not have to add any extra personnel to their staffs."

If a migratory chemical is not recognized as safe by "qualified experts" or covered by previous research, Commissioner Harvey points out, it must be subjected to long-term animal-feeding studies.

"Tests for migration and identity must have a high degree of accuracy. Animal tests must be used, because migrating elements are unlikely to be things with which scientists are familiar. These experiments must go beyond normal range of chemical use to determine safe level for migrant."

ularly plastics, papers and textiles— regardless of how long they have been in use. Inks, adhesives and tapes will also get close scrutiny, according to F&DA officials. Packagers are deeply involved because they now must be responsible for testing packaging materials and getting F&DA clearance.

To put it very simply: previously, a packaging material was considered innocent until proved guilty; now, it may be considered guilty until proved innocent.

What has impelled this drastic change? Aside from the fact that any substance going into the human body ought to be proved non-toxic—and the food-and-drug law previously had no requirement for proving this in advance of sale—Congress was influenced by recent medical reports pointing a finger of suspicion at the whole field of chemical additives as possibly containing carcinogenic (cancer-causing) agents. Such a sweeping indictment is not justified by the evidence to date, most authorities believe.

Because this new regulation is perhaps the most pressing current problem facing the packaging field —with mounting confusion on its interpretation and effect—MODERN PACKAGING went to F&DA headquarters in Washington to get the facts and also interviewed prominent packagers and suppliers with outstanding experience in chemical and toxicological testing. By presenting our findings in a series of articles, of which this is the first, we hope to cut through the fog surrounding this vital subject.

While food processors are the only ones directly affected by the regulation, all packagers have a stake in its application, particularly because the complex testing procedures required may mean higher prices for many key packaging materials.

For many years responsible companies in the packaging field have voluntarily checked their new packaging materials with F&DA—although many would argue that no serious illness has ever been traced to any chemical additive now commonly used in packaging. Previously, packagers could, technically, use whatever materials or additives they desired. It was up to F&DA to find out by itself if a new chemical was involved and whether it was safe.

Now that they suddenly face new, compulsory procedures, the same companies are uneasily beginning to ask three questions:

1. Will the F&DA be tolerant in applying provisions of the amendment and give packagers time to screen their packaging materials for offending chemical compounds?

2. Are only the modern, "exotic" materials affected by the law, or will packagers be required to sift old standbys that have been in use for years?

3. How much will the testing program cost and who is going to pay the bill?

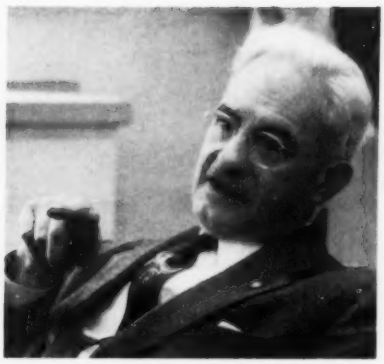
The last question is a startling story in itself and

Previous F&DA lists of acceptable chemical ingredients (see MP, Jan., '55, p. 115) are not adequate to satisfy new regulations, since compounded materials may contain innumerable unlisted ingredients. A few informal F&DA "sanctions" exist for some compounded materials, but they are restricted in application.

"Sanctions will not help very much, anyway, since they detail a specific manufacturer's material for a particular use only."

What help can packagers and suppliers expect from F&DA on their testing procedures?

"We are always willing to help packagers, but we do not know the ramifications of packaging problems and have added personnel only for enforcement work. We have chemists who are capable of checking data from industry."



Proof of compliance through test data can come either from the packager or his materials supplier —but the burden of responsibility in use is now on the packager.

"The onus of proof is on industry. The small manufacturer may have trouble, but he will have to find the money from somewhere."

will be the subject of a second article. Latest answers to the first two questions—while not yet complete and still the subject of much controversy—nevertheless seem to chart the general course this new regulation will take.

In brief, F&DA intends to follow its traditional policy of friendly cooperation with packagers during the informal stages of discussion—as well as hew close to the letter of the law and its own legal prerogatives as a regulatory body when it lays down the final rules.

The law

The new regulation specifically prohibits "the use in food of additives which have not been adequately tested to establish their safety." It defines an additive as any substance that may reasonably be expected, directly or indirectly, to become a component or otherwise affect the characteristics of any food. Thus, any compound in a packaging material is under question if it migrates to the food product or combines chemically with it.

To both the law and the F&DA, there is no distinction between chemicals spooned directly into the food in the manufacturing plant and chemicals accidentally added to the product by migration from

PHOTO FOOD & DRUG LABORATORIES, INC.

Animal feeding tests *for periods up to two years will be required to clear chemical migrants in packaging materials that have no toxicological history. White rats are the most commonly used animals for these experiments, which must be conducted under the most rigidly controlled conditions.*

the packaging material, according to F&DA Deputy Commissioner John L. Harvey. And following the agency's general policy, such packaging ingredients —even if completely harmless—will be permitted only if their use "accomplishes the intended physical or other technical effect." Use will be limited to the minimum amount necessary for this purpose.

On March 5 of this year, the first phase of the new law went into effect—barring the use of packaging material brought into commercial use since Jan. 1, 1958, unless they are recognized as safe for use in foods. To date, no new clearances have been issued for packaging materials, pending establishment of procedures. Next year, the second part of the law—and by far the most serious as far as food packagers are concerned—takes effect. Under this section, a packager may not use *any* packaging material for foods after March 5, 1960, unless it has been cleared by the F&DA.

There are only three "outs" in this regulation:

1. At its own discretion, F&DA may extend the time limit another 12 months—until March 5, 1961.

2. Chemical additives may be cleared for specific uses if they are covered by existing special F&DA sanctions or by the Miller Pesticide Amendment, the Poultry Products Inspection Act, or the Meat Inspection Act.

3. A packaging material may be exempt if it contains no substance that will affect or become part of a food, or if such substance is pronounced safe for a particular use by "experts qualified by scientific training and experience to evaluate its safety."

A key man *in F&DA's enforcement program is Dr. A. J. Lehman, director of the Pharmacology Division. It is his division which must decide whether proof of safety is adequate. If no analytical tests for a migrant chemical exists, says Dr. Lehman, they must be found by the applicant.*

The interpretation

However, several facts tend to lessen the attractiveness of these points.

First, F&DA holds the sole decision for granting or withholding the extra testing period. Commissioner Harvey has indicated that the decision, in some cases, will be influenced by the progress of test work on any packaging material and how "hard" the packager or supplier is tackling the problem at the end of the initial period.

Second, the prior sanctions—which number several hundred for food additives—are very restricted and usually describe a specific amount of a certain migrant chemical to be allowed only in a definite food product. Also, since F&DA does not intend to publish these sanctions, because of secrecy agreements with the manufacturers who applied for the sanctions, there is no way for packagers or suppliers to know whether their materials match such prior regulations except by submitting an inquiry as a "shot in the dark." F&DA will then indicate whether sanctions or other safety data exist.

Third is the matter of migration. If the solubility of a packaging material in foods is not known—and most are not—then the only way to find out whether chemical migration into the food occurs is to test for it. This can done by: (1) storing the food in the packaging material in question for the usual marketing period, then analyzing the food for foreign compounds, or (2) performing extraction tests on the material with a series of recommended solvents—which greatly shortens the test period.

If evidence of migration is found—and under the severe extraction tests recommended by F&DA this is more than a possibility—then further testing is necessary.

First, the migrating chemicals must be positively identified. F&DA officials are quite adamant on this point, even though many of the current analytical tests are not sensitive enough to classify complex chemicals used in modern packaging materials in concentrations of 1 ppm or less. These fine techniques will be required, however, particularly for border-line chemicals subject to close regulation, or for degradation products and secondary compounds caused by interaction of different packaging components and interaction of the package with natural chemicals in the foods.

If tests for such microscopic amounts must be developed—including use of expensive radioisotope tracers, spectrophotometers and chromatographic devices—then the packager must employ these techniques, according to Dr. [*Continued on page 170*]

Self-measuring closure

Dispenser cap that releases just enough instant coffee to make one cup, offered on Maryland Club to combat price deals, demonstrates convenience feature adaptable to other fields

To operate dispenser, *user simply tilts jar upside down, turns handle to fill measuring drum, then turns handle back and pre-measured quantity of coffee is released into cup. All parts—screw-cap fitment, drum and handle—are molded of polystyrene. Hinged lid on the top is polyethylene.*

As defense against the price-cutting, "cent-off" deals in instant-coffee merchandising, the Duncan Coffee Co., Houston, Tex., is distributing Maryland Club Instant Coffee in jars equipped with a premium-deal dispenser closure that appears to be attracting considerable attention for application in non-competitive food, drug and chemical fields.

The new closure represents one of the first attempts to reach market stage that answers consumer requests for an easy way to measure instant coffee.

Molded of polystyrene with a polyethylene lid, the dispenser replaces conventional metal screw caps on the premium packages. It is made with a measuring drum mounted in the specially molded screw cap. When the jar is tilted upside down, a handle is turned to fill the drum. When the handle is turned back, just enough coffee is released from the drum to make one cupful. Stops molded on each side of the handle control the action and assure the pre-measured quantity.

Advertised advantages are: "more exact measuring, no muss or waste, easier coffee making and fresher coffee."

The built-in dispenser offers "a sounder and more attractive way of appealing to the consumer than giving coffee away," according to its promotors. And they quote statistics showing that last year 53% of all instant coffee was sold through deals.

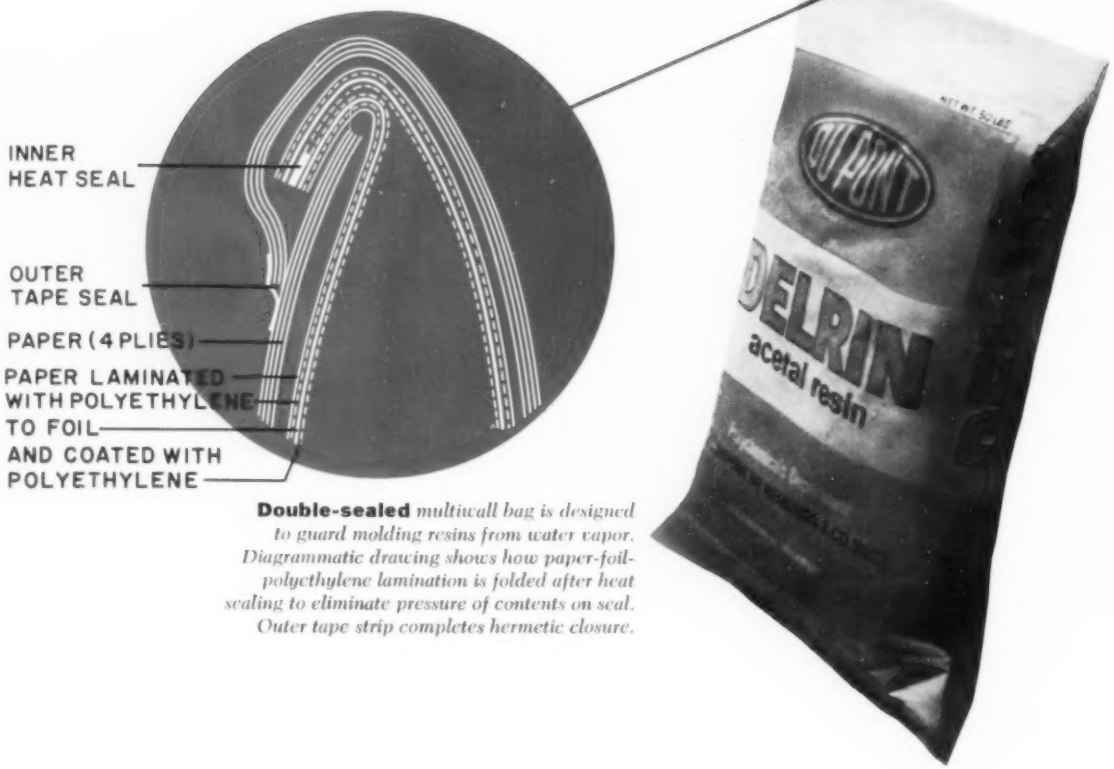
The dispenser will not maintain a vacuum, but this is not necessary in the case of instant coffee which is not ordinarily vacuum packed, according to the supplier. All parts—screw-cap fitment, measuring drum and handle—are molded of polystyrene. The hinged top is of polyethylene, a material reportedly used because of its flexibility to provide a snug seal when pressed down over the flanged mouth of the dispenser. A protective rubber gasket may be used between the dispenser body and jar mouth. Protection is also provided by the conventional glassine inner seal over the jar mouth.

Directions for use are given on a printed outsert tucked in the hinge of the lid.

After the inner seal is removed and the dispenser replaced, the jar need never be uncapped again by the consumer until it is empty. The measuring drum eliminates repeated opening and closing of the jar and closes off contents while the coffee is being dispensed.

The dispenser is being manufactured and sold by an advertising firm not ordinarily in the business of product development. This firm, convinced of its merchandising value, devoted three years to perfecting it. A patent is pending. Reportedly, the dispenser costs no more than a price deal—less than 20 cents on quantity orders—and is available to users in any field other than beverages.

SUPPLIES AND SERVICES: Dispenser closure molded by Amos Molded Plastics, Div. Amos-Thompson Corp., Edinburg, Ind., and sold by Clay Stephenson Associates, 2332 W. Holcombe Blvd., Houston 25.



Double-sealed *multiwall bag is designed to guard molding resins from water vapor. Diagrammatic drawing shows how paper-foil-polyethylene lamination is folded after heat sealing to eliminate pressure of contents on seal. Outer tape strip completes hermetic closure.*

Multiwall

Long a goal for industrial packagers has been the development of a multiwall bag that would provide the same impervious barrier to water vapor and other detrimental external conditions as do metal drums and cans, yet would retain the easy handling, filling and disposal characteristics of flexible bulk carriers.

Reportedly, this goal has now been virtually achieved in a strong new multiple-layer paper bag—incorporating both aluminum foil and polyethylene—that has been introduced at Du Pont's Parkersburg, W. Va., plant to package a new molding polymer called Delrin acetal resin. While this product is not particularly sensitive to moisture, it is desirable to keep the moisture content of molding resins at uniformly low levels to insure minimum variation in molding operations. The new bag—closed on a specially developed heat-sealing and taping machine—achieves this objective and so this combination of packaging materials is expected to be useful to packagers of such hygroscopic products as chemicals, foods and fertilizers that are now packaged in cans and drums or imperfectly protected in standard multiwall containers.

From Du Pont's standpoint, the container offers these cost, convenience and protection advantages:

1. Although compared with conventional multiwall bags the new bag is expensive—it is initially priced at 50 cents per 50-lb. bag—it is 55% less expensive, on a volume-for-volume basis, than the metal cans still used for similar resin products and which cost 55 cents per 25-lb. container.

2. In addition to this direct saving, the empty bags take up far less space in warehouse storage, are much more amenable to conventional shipping and handling techniques, and are easily disposed of by users.

3. Biggest asset of these bags, however, is their resistance to adverse climate. After weeks of exposure to severe tropical conditions of temperature and humidity (100 deg. F. and 90% R. H.) in the supplier's test chambers, experimental models of the new bags showed such a low level of moisture absorption that it could not be picked up by simple

weighing and was detected only by laboratory analysis of product samples. Also, there was no failure of the bags' heat-sealed seams or supplementary tape closures.

To achieve these results necessitated an entirely new approach in heat-sealing techniques for multiwall constructions. A stepped-end design is also part of the solution.

In construction, the 19-by-28-in. bag has a central "core" of 0.0005-in. foil, coated on its inner surface with 45 lbs. of low-density polyethylene. This foil is laminated with 10 lbs. of polyethylene to a 40-lb. sheet of natural kraft. The two layers of polyethylene total approximately $3\frac{2}{3}$ mils and together with the foil afford a superior barrier. Structural strength is provided by three 50-lb. kraft sheets and one 60-lb. sheet, which together form the outer lamination.

The bag has a 2-in. lip that permits one heat-sealing iron to contact the foil-polyethylene lamination, unimpeded by multiple layers of paper. This arrangement also enables a fold and tape closure to be made in the bag below the heat seal to prevent the weight of contents from resting directly on the seal.

During manufacture, the longitudinal center seam of the bag is heat sealed and folded; the bottom is heat sealed, folded and taped. According to the supplier, the full, sealed container has actually outperformed loaded, flat-sewn bags in drop tests.

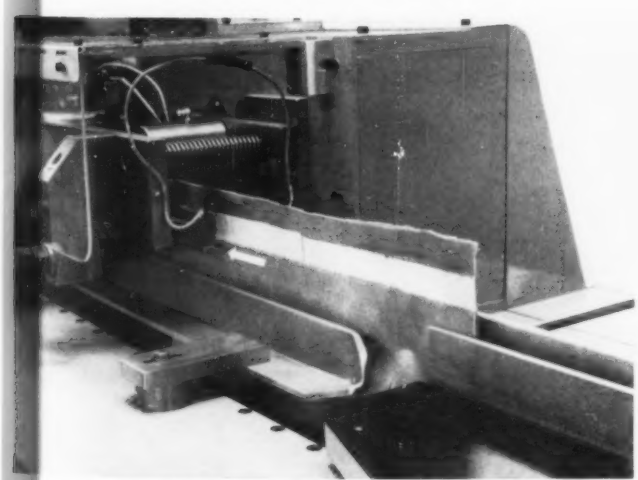
The key to the success of this multiwall bag is the patented closing machine, supplied by the bag maker and occupying only $20\frac{1}{2}$ sq. ft. of floor space. This unit works with most standard bag fillers and forms the special heat-seal, fold and tape closures at the top of the bag at a rated speed of six to eight bags per minute. Top [*Continued on page 166*]

SUPPLIES AND SERVICES: Heat sealer and "Uniseal" bags by Union Bag-Camp Paper Corp., 233 Broadway, New York 7.

New paper-foil-polyethylene bulk carrier, heat sealed and taped on a new machine, protects Du Pont resin under tropical test conditions, opening new prospects for all hygroscopic products

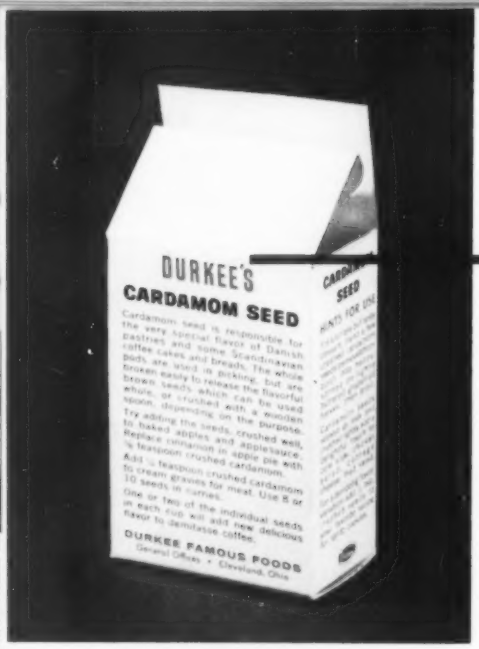
l super-barrier

PHOTOS UNION BAG-CAMP PAPER



Unique bag closer *has broad jaws (right) that squeeze air out of the multiwall container. Bag then passes into heat sealer (left), equipped with scoring knife (arrow) to facilitate later folding and taping.*

Folding and compression mechanism *at end of unit seals bag's top flap with strip of moistened tape. Fold, made below heat seal, keeps pressure of bag's contents from spreading heat seal.*



Intricate construction *of new package's hermetic top closure puts tuck flap on the inside. It is lightly glued to the dust flaps to prevent sifting. The outer glue flap is then glued down over the tuck flap to complete closure. Note recipes and hints for use printed on back and sides of the carton.*

GLUE FLAP

Siftproof sealing is combined with a convenient reclosure feature in a redesign project that puts Durkee whole spices in colorful, one-size units handled 500% faster by half the personnel

Impulse appeal, *offered by mouth-watering, full-color illustration on each of Durkee's 26 whole spice and herb packages, is designed to encourage housewives to use some of the lesser-known flavorings.*

THAT TUCKS BACK

In an attempt to break with traditional container-design practices in the packaging of whole herbs and spices, Durkee Famous Foods, Cleveland, has come up with five significant improvements, three of them in the packaging operation itself, demonstrating once again that a surface-design project broadened to include analysis of an entire packaging program can pay unexpected dividends in production economy and improved package utility.*

Here are Durkee's five achievements:

1. A folding carton with a new, convenient hermetic glue-flap and tuck-top combination closure that provides siftproof sealing, yet gives the housewife ready access to the contents and sure reclosing for pantry storage.

2. Reduction in the number of carton sizes for its 26 spices from four to one, effecting considerable savings in packaging-line equipment and warehouse handling and providing improved impact in mass retail display.

3. A 500% increase in packaging speed through cost-cutting adoption of a single high-speed carton filling and sealing machine, previously used only for such high-volume products as powdered soaps and dry baby cereals. With special modifications, this line turns out filled, sealed and bundled cartons of spices at the rate of 360 per minute with the use of 50% less personnel.

4. Appetizing, full-color illustrations of end-use foods replacing lettered design and reproduced on dazzling white food board.

5. Original recipes, descriptions of the spices, and hints and directions for use that, with the illustrations, are designed to whet consumer appetites for the unusual flavorings in the Durkee line.

*See "Snap-Close Carton for Caps," MODERN PACKAGING, April, 1959, p. 152.

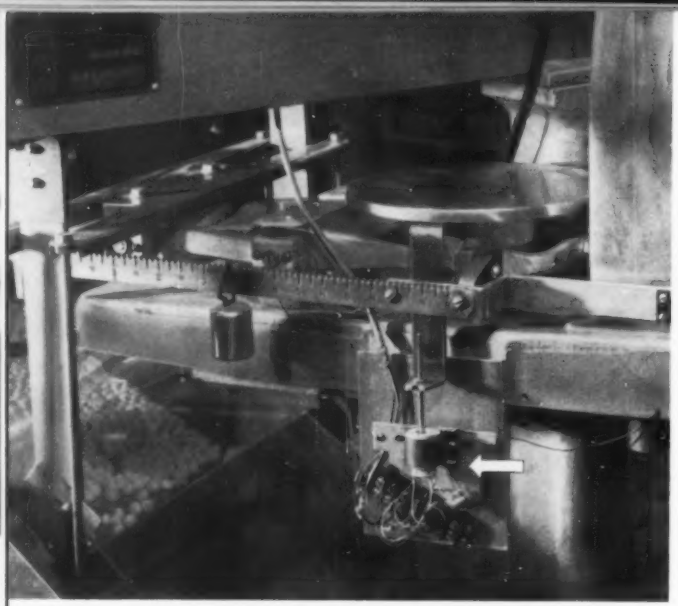
Punch-tab opener *in back of the glue flap enables consumer to break the seal. Glue flap remains attached to reclosable top for added strength and continued top-of-package identification.*

Old packages *for the company's whole spices were standard glue-flap cartons with conventional design, used in four different sizes.*

Fresh package design

In debating a change in package design, it was accepted at the start that for Durkee's whole spices and herbs a folding carton remained the most desirable package because if its economy and adequate barrier characteristics. But the company wanted to eliminate the multiple sizes used previously and to replace the standard glue-flap closure with a convenient reclosable top that would be siftproof during shipping and handling. Of prime importance, however, was the creation of a new surface design and functional copy that would lift these products "out of the pack" and spark impulse purchases by enticing shoppers to try the more unusual items.

First, a standard carton size was established at 2 by $2\frac{15}{16}$ by $1\frac{13}{64}$ in. that would hold adequate amounts of the spices, all of which have different shapes and densities. As a result, fill weights vary from a minimum of $\frac{3}{16}$ oz. for feather-light bay leaves to $3\frac{1}{4}$ oz. for lump alum used in pickling. But all fills are calculated to give a package that—



Filling head *employs vibrating trough and spreader plates to move spices evenly into the spinning filler pockets. Over-and-under scale varies the vibrations to correct the fill through a coil and sensing element (arrow).*

without crushing the fragile products—is full in appearance.

Next, the special closure was achieved by marrying the standard full-flap glue closure to a tuck top. As a result, one full flap has a tuck tab, is closed over the side dust flaps and is lightly glued to the latter to retard sifting. The outer glue flap, glued in place last, doubly insures against spillage. However, this flap is perforated along its score line. With an added punch-tab design, this arrangement enables the consumer to break open the top, pulling both the glue flap and the inner tuck flap away from the dust flaps. The tuck flap then becomes the reclosure and is made extra strong by the glue flap attached to it. This reinforced top not only lasts better, but enables product identification printed on the outer glue flap to remain throughout the use life of the package.

Surface design of the package was created in Durkee's own art department and comprises a series of almost-photographic drawings in full color of foods that suggest such end use of the spices and herbs as stick cinnamon for spiced peaches, whole cloves for juicy ham, leaf sage for stuffed turkey. To gain full impact from these illustrations, an ultra-white bleached food board containing a high percentage of titanium dioxide pigment was selected to replace the previous clay-coated newsback board. The new cartonboard provides a superior printing surface for the four-color lithographed designs, which are covered with a scuff- and dirt-resistant coating of lacquer that has also proved highly resistant to staining and the darkening effects of volatile spice oils.

Supporting the illustrations in the new design are product descriptions, cooking hints and original recipes printed on the two sides and back of each carton. This copy carries out the company's sales theme of "cook-book packaging" that avoids the premium leaflets or recipe booklets frequently attached to display racks. Recipes will be changed from time to time. [*Continued on page 153*]

SUPPLIES AND SERVICES: "Hi Fi" cartons and printing by American Can's Marathon Div., Menasha, Wis. "Neverstop" carton machine by Food Machinery & Chemical's Packaging Machinery Div., Philadelphia.

High-speed packager *in U-shape whirls bottom-sealed, top-open packages (from left rear) around filling head (right rear) through final closing and gluing (middle) to compression unit. Standard machine for powdered soaps and dry baby cereals was modified for this carton-handling job by the addition of an air-jet assist to open the cartons and stationary plows to close the special top flaps.*

Rack-packaging dynamics

Experts who service non-food departments in supermarkets know what it takes to move goods off the rack; they tell how 'minor' packaging details can make or break the sale

Watchful eye *of the trained rack serviceman notes slow movers as well as items that are snapped up almost as fast as they're stocked. From reports turned in by such men as this, jobbers gather the data that help them predict with uncanny accuracy the success or failure of a self-selection rack package.*

PHOTO AMERICAN RACK MERCHANDISERS INSTITUTE

Few people are more aware of packaging's vital role in self-sell merchandising today than the rack jobbers—the independent businessmen who keep thousands of supermarket non-food departments stocked with fast-moving, profitable items. As absolute arbiters of what goes on a rack, their evaluations of packaging, reported in this article, are worth careful study because these men speak from long experience.[1] What they say is important to all packagers of self-selection products, but is *must* information of vital significance for those who sell their products through rack jobbers.

Their experience tells rack jobbers there are nine significant criteria to satisfy in creating effective packaging for the mass sale of every type of non-food impulse product on the supermarket rack:

1. Good visibility.
2. Immediate, clear indication of what the product is and what it will do.
3. Prominent price marking.
4. Durability to withstand heavy handling.
5. Attractive decoration and proportions, with good "feel."
6. Concise, promotional copy and (where needed) easily understood use directions and illustrations.
7. No sharp edges to harm customers or clerks.
8. Large enough to discourage pilferage, yet not space hogging.
9. Adaptable to hang-up display whenever possible.

How do rack jobbers come by these opinions? The answer is implicit in the volume of business they are now doing. A national survey of non-food sales in foods stores reveals that rack merchandisers supply about two-thirds of all the non-food prod-

[1] See "10 Seconds to Sell," MODERN PACKAGING, Dec., 1957, p. 91.

ucts. Translated into dollars, this means they control about $1.2 billion in sales annually. In the last 10 years, their total annual retail volume on housewares alone has grown from $16 million to $385 million. The non-food departments they serve now get more than 10% of the selling space in the average supermarket. Latest Super Market Institute survey figures show that 87% of supers carry housewares, 81% women's hosiery and 74% stationery —to say nothing of hardware, toys, electrical items.

These merchandisers' selection of non-food items may run the gamut, but they are all triggered by one intent—fast turnover. The items they choose must attract attention, get the selling messages across and land in the shopping cart in little more time than it takes to blink an eye. Packaging punch is a must for this spilt-second selling.

So rack jobbers are experts on impulse sales. They can size up a new product's selling potential quickly and with amazing accuracy. And they know packaging. They know it can make or break sales.

What else do they say goes into a good rack package? Are there any other rules about packaging for this volatile business? What are the good examples?

MODERN PACKAGING took these questions to a panel of leading rack jobbers during the American Rack Merchandisers Institute's recent sample show in Chicago. (ARMI is an association of 486 rack distributors and manufacturer members. Distributor members service non-food departments in some 19,000 U. S. supermarkets.) The experts whose opinions were solicited include: Barkley Berdan, president, Interstate Wholesale Corp., Syracuse; Alvin Driscoll, president, Pioneer Distributing Co., Wichita; Allen Levis, president, Herst-Allen Co., Chicago; M. M. Weisenthal, president, Housewares, Inc., Pittsburgh, and L. Bowden DeForest, ARMI executive vice president.

These marketing-wise representatives of the rack-jobber industry agree that a non-food product must meet four broad basic standards before it can even hope to compete successfully on the supermarket rack. These are:

- It must have impulse appeal, to whet immediate shopper interest and stimulate an urge to buy.
- It must have good utility value to a large segment of the consumer force. Dual-purpose use offers a valuable extra sales push.
- It must be reasonably priced. This doesn't mean simply cheap. Most rack-merchandised non-foods fall into the 19-cents-to-$3 price range, but there's a recognizable trend toward higher-priced rack items. For example, Westclox reports excellent sales since introducing to supermarkets a line of blister-packaged alarm clocks that retail for up to $7.98.
- It must be properly packaged. Whatever the packaging vehicle—be it box, bag, card, sleeve, label or tag—it must measure up to the nine stringent requirements previously listed.

So much for the ground rules that qualify a product for consideration as a fast-turnover rack item. But within this basic framework, each packager has his own specific product problem that calls for

MULTI-USE POTENTIAL PACKS A SALES PUNCH

Integration *of this stainless-steel fork with design elements on the multicolor-printed card to which it is stapled obviate need for directional copy.*

Double functions *of can and bottle opener are pointed out by simple, clear drawings on this acetate-blister hang-up card. Product is an integral part of primary design illustration.*

the advice of experts. Much akin to the futility of forcing a square peg into a round hole are the dissipation of sales potential and dilution of profit margin caused by choosing the wrong type of package or a package whose cost is not commensurate with product value.

Illustrated on these pages are items in various product categories, selected by the ARMI panel as representative of effective packaging for rack selling. The examples shown do not necessarily indicate the *best* way or the *only* way to package a given article, of course. But they have this in common: Each has solved a packaging problem neatly and at relatively low cost.

The experts' comments on the merchandising qualities inherent in these successful packages—and on rack merchandising in general—have significance for all packagers, designers and suppliers concerned with supermarket rack sales. They may spark usable packaging ideas that will give your new product a better chance of success; they may help you find out why your product's sales are not up to initial expectations.

As a general trend, the ARMI panel agrees, the quality of rack packaging is definitely improving. Not only are packagers becoming more aware of what it takes to stop a shopper and sell her in seconds, but they are also learning to gear their packages to the physical needs of rack display.

The rack-jobber experts note a big upswing in the use of transparent plastic blister and skin packaging that lets the shopper see what she's getting, yet protects the product from damage and soil in handling. But they say some packagers—perhaps guided by an overzealous dedication to economy—make the mistake of using film that can break under the weight of the product in handling. They caution that rough handling is an intrinsic hazard of rack selling and that packagers must take this factor into consideration when they plan a film package.

Among the many excellent rack packages analyzed by the panel are these typical good examples.

The power of product visibility is illustrated by the spectacular sales success scored by Stanley-Oliver Mfg. Co. when it switched to an acetate-blister hang-up card for a slow-selling faucet strainer. The printed, die-cut card has vacuum-formed blisters on both sides to display the strainer in three dimensions. Shortly after introduction of this unit, sales rose at such a rate that the company was flooded with a huge backlog of orders.[2] Interestingly, this is the second time that this housewares item has been selected by ARMI as an outstandingly effective rack package.

Similarly, the ARMI panel points out, the

[2] See "Bingo with Blisters," MODERN PACKAGING, Dec., 1958, p. 96.

PROTECTION AND VISIBILITY MAKE A WINNING COMBINATION

Blister pack *boomed sales for Stanley-Oliver's faucet strainer. Die-cut hang card with double acetate bubble holds product securely, shows it off in three dimensions, clearly indicates use. Blister by Makatoy Co., Chicago.*

Sagless *polyethylene bag for Tru-Fax tee shirt has paperboard insert so it can hang up or stand on end. Note size, price and guarantee printed on bag. Unprinted area shows off construction of garment's reinforced neckband.*

Pilferage *has been all but eliminated since Fotomics Corp. adopted hang-up blister card for a slide viewer. Note off-center die-cut opening, which allows card to hang straight. Blister by Robert Crowley & Associates, Chicago.*

Unusual *product, such as Tastee metal egg ring, requires full product visibility, more detailed printed data than does a can opener or similar conventional type of item.*

Switch *to transparent bag spurred sales for Blue Streak coffee filters. Polyethylene bag by Milprint, Milwaukee. Header by Cornell Paperboard Products Co., Milwaukee.*

TAGS AND LABELS TELL THE PRODUCT STORY

Too slim *to be labeled, too bulky to be bagged or carded, this Ekco egg beater has become a best-selling rack item via a simple paperboard tag attached by a string to the hang hole in its handle. Copy and art on the tag demonstrate the product's use. Tag by A. M. Steigerwald Co., Chicago.*

Mouth-watering *illustration, recipe copy dominate lithographed label for Bake-King aluminum pie pans. Label is firmly affixed to stay on in rough handling. (Poor-quality labels with inferior adhesive rank high as a problem for rack jobbers.) Label by G. A. Ackermann Printing, Cicero, Ill.*

Realistic *paper insert that simulates a piece of cherry pie makes a big rack seller of this polystyrene box for protecting a wedge of pie in Junior's lunch box. Folded-down edges of the full-color insert heighten the "pie" illustration and add to the product's appeal.*

Schwartz Mfg. Co. watched sales skyrocket after adopting a printed polyethylene bag stapled to a hang-up header as its new package for Blue Streak coffee filters. The header card is color keyed to help shoppers identify at a glance the two types of filter offered (pink for percolator filters, light green for drip filters).

Another transparent thermoplastic package cited by the rack jobbers as a good salesmaker is the polyethylene bag used by John Clark Brown, Inc., for its Tastee metal egg ring. For maximum product visibility, the bag is unprinted. All pertinent product information is contained on a printed header card to which the bag is stapled.

Since going to a hang-up acetate-blister card for its slide viewer, the Fotomics Corp. not only has chalked up sales gains; it also has all but eliminated a serious pilferage problem. The card is big enough to discourage unscrupulous shoppers from pocketing the product, but not so big that it takes more than its reasonable share of display space. The predominantly yellow card contrasts nicely with the green-colored viewer, to make the package an effective attention getter.

Product visibility, protection and pilferproofness aren't the only attributes cited for these four top-ranked rack packages. The hang card for each carries a clear illustration showing how the product is used. In the ARMI panel's opinion, this is a must feature that clinches the sale for many products that might otherwise gather dust on the rack.

In this connection, the Tastee egg-ring package rates high in impulse appeal. Besides the end-use illustration, copy on the hang card promotes another potential use for the product (as a hamburger former) and also encourages multiple purchases via an inset illustration showing that four egg rings fit neatly in a frying pan. The factor of multiple use, says the panel, is a decided stimulant to sales, since the shopper feels she's getting more for her money.

Multi-use possibilities register fast on two other packages singled out for comment by the rack jobbers. A stainless-steel olive, pickle and cherry fork marketed by the Vaughan Mfg. Co. is stapled to a slim card featuring an illustration of a glass jar partially filled with olives. The position of the fork on the card tells its use at a glance and background vignettes of cherries and pickles suggest its versatility. Foley Mfg. Co.'s Can Tapper, merchandised on an acetate-blister card, appears to be punching a hole in a metal can. An adjacent close-up illustration shows that the opposite end of the can opener can be used to remove crown caps from bottles.

Among their biggest sources of complaint, say the experts, are inferior labels and bag headers. Too many labels, they point out, are poorly designed or are made of low-quality paper, glued on with weak adhesive. If they become torn or fall off, they

take the profit with them, because rack merchandise with a mutilated or missing label is unsalable even if it is otherwise in perfect condition. The same holds true for bag headers.

Cited for the physical quality of their labels and for sales-promoting labeling technique are Chicago Metallic Mfg. Co.'s Bake King aluminum pie pan and Columbus Plastic Products' polystyrene pie box for holding a wedge of pie. Bake King's lithographed paper label is firmly adhered inside the bottom of the pan. It is dominated by an appetizing full-color illustration of a pie, along with recipe copy. The label for Columbus' pie box is actually a paper insert in color that simulates a piece of cherry pie. The label's edges fold down along the sides of the wedge-shaped container to give the "pie" a realistic three-dimensional effect. Rack sales of this product are reported to have risen sharply since adoption of the appetite-appealing insert.

The ARMI experts also have something to say about the rack packaging of soft goods and hardware products, both of which are moving solidly into the supermarket sales scheme. They agree that the newer polyethylene bags—because of the film's clarity, strength, sheen and soft feel—make the ideal package for underwear and other soft goods. But they caution packagers to use a gauge of film heavy enough to prevent breakage or puncture. And, they say, such soft, limp items as underwear require a paperboard backing card to give the package body and "take the sag out of the bag." As for copy elements, all size, style, guarantee and other product data should be clearly and prominently marked.

A rack package that encompasses many of these sales-making features is the polyethylene bag for Tru-Fax boys' tee shirts. Stapled to a hang-holed saddle header, the transparent bag permits shoppers to examine the product for quality. A money-back guarantee—a big selling point for soft goods—is clearly printed, as are size and price. A paperboard insert keeps the package rigid, so it can be stood up as well as be hung from a peg.

According to the rack jobbers, many of the larger or specialized hardware products don't sell fast enough to rate stocking in supermarkets. But American Tack Co. is doing a land-office business (2,000,000 units sold so far) by promoting to women an assortment of tacks, nails and screws appealingly packaged in a compartmented polystyrene box.

Three additional items selected by the panel as standout examples of rack packaging include: a carry pack for tumblers whose breakage problem was solved by an almost invisible package addition, an egg beater that couldn't be packaged and a bulky, high-priced product that became a top seller.

Bartlett-Collins Co.'s Pik-A-Pak glass tumblers

Hardware items, *properly packaged, can become fast-turnover rack products. Good example is this compartmented, transparent polystyrene box holding an assortment of nails, tacks and screws for household use. Promoted to women, it has become a big seller in supermarket racks. Box by Continental Plastics Corp., Chicago.*

are packaged in sets of four in a paperboard carry sleeve. For product visibility, about half of each tumbler projects beyond the sleeve edge. Product breakage was a serious problem until the company adopted as a package addition a transparent cellulose band which is wrapped horizontally around the four-tumbler carry-home unit. The band prevents the tumblers from falling out of the sleeve during handling, with no loss in visibility.

A simple paperboard tag attached by a string to a hang hole in the handle is all the packaging needed to make Ekco Product's one-hand egg beater a fast-turnover rack item. *[Continued on page 154]*

Trend *to rack stocking of higher-priced items is illustrated by this $3.98 ironing-board cover. Neatly folded and wrapped in polyethylene, bulky product makes attractive unit that doesn't hog valuable space. Wrap by Eastern Cellophane Co., Boston.*

Foil 'concertina' strip pack

An aluminum-foil strip package for sliced cheese, consisting of eight individual heat-sealed and printed pouches containing one slice each, has been adopted by Swift & Co., Ltd., London. It is another intriguing packaging idea from abroad that could be applied effectively by packagers in other fields on this side of the Atlantic.

Primary advantages of the company's "concertina pack," obviously, are the product protection and user convenience it affords. Individual pouches, separated by perforations, can be stripped off as needed, leaving the remaining slices completely sealed for long-term freshness.

An automatic machine forms, fills and seals the strip packages at a reported speed of more than 1,000 per hour. Flat lengths of processed cheese are fed into a pre-printed and heat-sealed tube of foil, which is then made into strips of eight equal-sized pouches. Perforations between pouches are applied in the same operation. Each strip is automatically folded into compact "concertina" form for final packaging into unit and shipping containers. *Printed aluminum foil by Venesta, Ltd., London, E.C. 4, England.*

IDEAS

Roll-on for food product

A striking example of how effective packaging ideas can be shared among products in totally unrelated fields is the adoption by Reese Finer Foods, Chicago, of a glass bottle with roll-on applicator for garlic oil. Heretofore used primarily for liquid deodorants, this type of container is a logical, convenient-to-use package for any liquid product that must be applied in small amounts or to a given area.

The company points out that with its new applicator package, housewives can rub real garlic flavor onto meats or salad bowls without ever touching the product itself. This convenience feature eliminates the need to scrub away the pungent, persistent aroma that is a hazard of handling garlic buds. The polystyrene applicator ball is held in place by a polyethylene fitment on the neck of the bottle. When the bottle is inverted and rubbing action begun, the ball revolves, picking up a thin film of garlic oil. A white urea screw cap protects the product from evaporation in storage. *Glass bottle, polyethylene fitment and closure by Owens-Illinois, Toledo 1. Polystyrene applicator ball by Orange Products, Orange, N.J. Contract packaging by Kolar Laboratories, Chicago 7.*

Shipper zips into display

A colorfully printed corrugated shipping container equipped with a tear-tape, easy-opening feature that enables retailers to convert it quickly into an attractive and space-saving floor merchandiser is being used by Kits, Inc., Miamisburg, O., for a line of children's archery sets. This type of shipper-display can be adopted by packagers of such similar difficult-to-handle products as brooms, floor mops, curtain rods and household moldings.

To permit sturdy stand-up for the display, a die-cut corrugated easel packed inside the shipper fits into pre-cut slots in its back panel. The tape is a 3/16-in.-diameter rayon string that is applied on the corrugator to the container's inner surface, about two-fifths of the distance between the bottom and the top panels. A tab projecting from the manufacturer's joint provides the starting point from which the dealer can strip off the tape to separate the display base cleanly from the disposable upper section.

For added display appeal, copy and design elements are printed in red and black on a pastel blue background. *Shipper-display by Inland Container Corp., Indianapolis 6.*

IN ACTION

Spotlight on information

The emphasis is on family identity and fast-reading, informative copy in the overwrap redesign for a line of frozen seafood products marketed by the Blue Water Seafoods Div. of Fishery Products of Cleveland. A key premise in the company's redesign program was that many packagers engender consumer ill will and loss of repeat sales by neglecting to spotlight on the main panel such important data as exact product description and whether the food needs brief heating or requires pan frying. This information is provided, in bold copy and artwork, on the overwraps for the company's 17 varieties of seafood. Identification copy is printed in red for heat-and-eat products, in blue for seafood that must be fried.

For family identity, copy and art elements occupy the same relative position on the overwrap for each product. The basic design is a yellow cross-hatched background, a full-color vignette of the prepared food, copy identifying the type of fish, preparation data and the Blue Water logo. Family-size packages are identified by a printed horizontal bar at the bottom of the panel. *Overwraps and cartons by American Can's Marathon Div., Menasha, Wis.*

GREAT PACKAGING DISCOVERIES – 4

THIS MONTH'S COVER

THE BEER CAN

The handy, throw-away beer can will celebrate its 25th birthday next year. But when today's millions of canned-beer drinkers wield that now familiar little metal opener to pierce a can and pour out the clear, foaming brew, few are aware of the lengthy effort that went on between the concept of this revolutionary packaging idea in 1928 and the first commercial application in 1935—seven years and four million dollars later.

Those are the figures for American Can Co. alone, which claims for itself the first practical concept of the beer can. Although competitors were not far behind, the trade agrees that Canco was first to get canned beer beyond the experimental stage. And time has proved that Canco's original conception of the lined, locked-seam, flat-top can was right.

From a few thousand Canco cans in a 1935 test market, the industry's beer-can sales have grown to an estimated 8.8 billion cans annually—or better than one out of every five of the total 41.8 billion cans that will be be produced in 1959.

The beer can is credited with opening up a whole new approach to the merchandising of packaged beer in food stores and supermarkets, broadening the market to 57% of the country's urban families who drink beer. It was the biggest factor in swinging the brewing industry to packaging. Today, 79.6% of beer is packaged (38.1% in cans) and 20.4% is sold on draught—a situation which was exactly the other way around in 1935. And the sale of beer in single-trip containers—plus the convenience it offers consumers—is reportedly saving distributors and dealers the impressive sum of $37,500,000 a year in shipping and handling costs.

The same basic can, with special variations, has invaded the carbonated soft-drink field which now takes more than 400 million cans a year.

And out of the beer can grew the whole aerosol industry, which would have been highly restricted without a throw-away container strong enough to hold a high degree of internal pressure*—one of the basic requirements of the beer can.

The idea for the beer can came first, it is believed, from an American Can Co. salesman, the late C. C. Cadwallader, who foresaw in 1928 that Repeal would put an end to "home brew" and its sizable malt-syrup can sales.

It took three years for the idea to jell. It took four more years of research by literally hundreds of Canco chemists, physicists, metallurgists, engineers—plus the cooperation of the research staffs of brewing firms and equipment manufacturers—before the first successful beer cans were marketed.

"So many were involved in the technical development, it would be impossible to credit any one person," says F. C. Baselt, now in Canco general sales, who was project leader of the beer-can development. The whole project might have been abandoned, he says, except for leadership of the late W. E. Taylor, Canco vice president, who offered his personal fortune at one point rather than give up.

At the outset, two requirements radically new to can manufacturing were apparent: (1) container strength sufficient to withstand the peak pressure arising during pasteurization of beer and the continuous pressure of the product at normal storage temperatures and (2) protection of beer from metal taste effect to an extreme not previously found necessary with canned foods.

During the sterilization process, ordinary food cans need withstand no more than 30 to 35 p.s.i. After cooling, cans of food under vacuum exert no outward strain during storage. But a can of beer had to be capable of withstanding pressures up to 80 p.s.i. during pasteurization and around 35 p.s.i. during storage.

Canco technologists determined the thickness of tinplate which they considered

* See "Low-Pressure Aerosols," MODERN PACKAGING, Nov., 1947, p. 116.

adequate to hold the pressure, made up sanitary-type cans in this gauge and experimentally packed them with beer.

The pressure burst every side seam and buckled the ends to unrecognizable shapes. Skeptics were gleeful, but scientists never say die. They saw that they had to make a stronger side seam and ends to hold extreme internal pressure.

They overcame the side-seam weakness by letting trapped gasses escape during manufacture in a way that permits the solder to flow through the seam and contact all folds of the intricately locked metal.

After trying hundreds of shapes, a satisfactory end finally emerged—but not until steel makers provided a specially treated tinplate by the unorthodox procedure of adding phosphorous to Bessemer plate.

But the biggest problem of all was the interior lining. Packed in ordinary cans, beer takes on a startling, milky appearance, caused by the presence of tin and iron in the beer. Beer packed in ordinary enamel-lined cans, although not cloudy, had an unsuitable taste. First attempts were made to overcome these difficulties with waxes and pitches. These improved the clarity of the beer, but not the taste. It was finally concluded that a single coating possessing all the essential characteristics was unavailable. The only alternative was a double-coat system: (1) a base coat of baked-on enamel consisting of natural and synthetic resins combined with drying oils to provide toughness and freedom from taste and (2) a sprayed-on top coat to produce a continuous film on the formed body, also tasteless, to eliminate any discontinuities in the base coat. The present-day top coat may be described as a vinyl type, produced by copolymerizing vinyl acetate and vinyl chloride and dissolving it in a solvent for spraying.

The top coat called for the development of a special spraying nozzle and a method of spinning the cylindrical can bodies for uniform spray application.

A food-can line had to be converted for the filling operation and a brewer had to be persuaded to cooperate in developing it. The two firms which worked most closely with Canco in the beginning were the G. Krueger Brewing Co., Newark, N. J., and Pabst Brewing, Chicago. As no filler on the market at the time would fill an open-top can with beer, Canco had to design and build the first filling heads.

The fateful day was Jan. 24, 1935, when Krueger beer—the first ever to be commercially marketed in cans—went on sale in Richmond, Va. If canned beer had at least fair success in Richmond in winter, it was reasoned, the container would be right and greater success could be expected in other markets. In Canco's New York office, executives awaited the results. Interviewers were hired to make 2,000 calls on purchasers of canned beer. Of those who bought it, 96% liked it and 87% of those interviewed said, "It tastes better."

The rest is history. Canco was not alone in the development; major competitors had also been working intensively on the problem and were in the market with successful packages within a year, including a cone-topped, crown-sealed version which initially was popular with many brewers because it could be filled and sealed on modified bottling equipment. The one-piece-body, cone-topped can—with certain modifications—went on to prominence in the aerosol field, while the flat-top style can came to dominate the beer field and eventually, the carbonated soft-drink beverage field.

The metal container that accounts for one-fifth of all cans produced today came from the foresight of a salesman

Secret was in *the interior coating, which literally hundreds of scientists, squinting into microscopes, helped to develop and to perfect.*

PACKAGING PAGEANT

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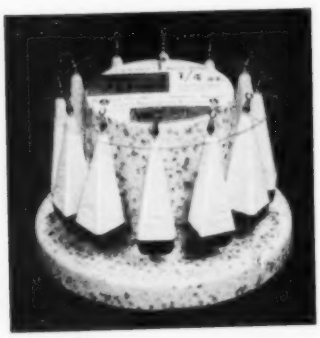

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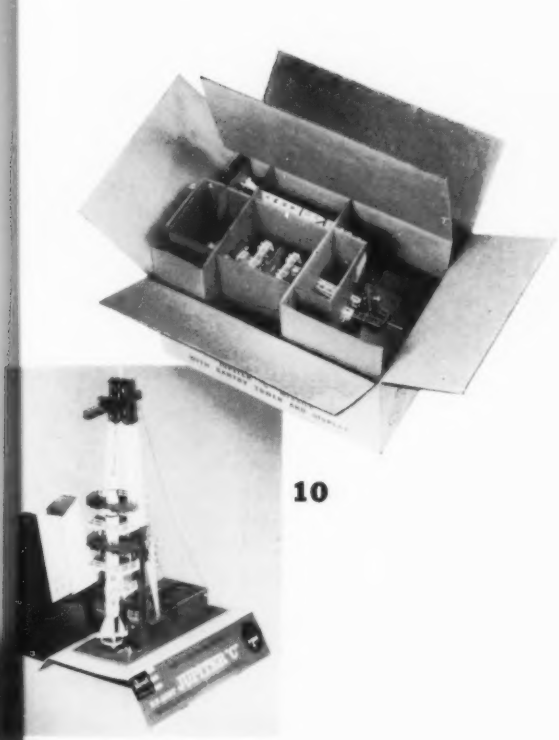


10

1 Changing shape for coffee jars is suggested by a wide-mouth, squat-shaped, re-usable jar holding 2 lbs. of Alta brand vacuum-packed coffee introduced by Alexander Balart Co. Blown-in lettering on the shoulder advises, "Do not fill above this line when used as a freezer jar." The container can also be used for storing flour, sugar, etc., and as a vase or planter. Jar, Owens-Illinois, Toledo 1. Closure, Barnardin Bottle Cap Co., Evansville, Ind.

2 Immediate consumer acceptance is reported by McCormick & Co. for new cheese-dip seasonings and Italian spaghetti-sauce mix in individual envelope packets of laminated foil-acetate-paper. Flavor and preparation instructions, with appetite-appeal, four-color illustration, are printed on envelopes. "Metalam" envelopes, Dow's Dobeckmun Co., Cleveland.

3 Accordion construction of a polyethylene squeeze bottle for Eaton Laboratories' Furacin Solution simplifies the treatment of bovine mastitis and intrauterine infection. This single-dose container dispenses the drug through a special tip when pressure is applied to the base, eliminating transfer of the compound from a larger container to a syringe. Container, Wheaton Plastics, May's Landing, N.J.

4 Improved display as well as efficient shipping protection are offered for a new tapered set-up box for Philco's T-45 miniature transistor radio. Hinged-lid shadow boxes carry promotional copy. Inner platform holds carrying case, radio and batteries in die-cut opening. Earphone-and-cord attachment in polyethylene bag is secured to platform by die-cut tabs. Box, C. Albert Sauter Co., Philadelphia.

5 A new foil-laminated margarine carton with a corner opening just big enough to slip out one stick at a time is calculated to discourage pilferage. The carton, adopted by Mother's Food Products for "Pareve, Kosher" margarine, may be resealed for product protection in home storage. "Pik-A-Stick" carton, Sutherland Paper Co., Kalamazoo, Mich.

6 Foam-molded expandable polystyrene forms the base of this low-cost, compact, circular display holding 12 practice casting plugs made by the Weber Tackle Co. The disposable unit measures 4½ in. across the base, stands 3 in. high. Plugs are suspended from a transparent disk fastened to the stand with screw nails. Display, Weber Plastics, Stevens Point, Wis., using Koppers Dylite expandable polystyrene.

7 New distribution outlets and greater consumer acceptance are reported by Wild Acres Gourmet Foods for heat-and-eat dishes in new packages. Square aluminum trays for turkey and chicken dishes have crimped-on lids made of solid bleached sulphate-foil, lithographed in full color. Cartons for pouch packages of Wild Cranberry Zest are lithographed with a similar design. Cartons and lids, Milprint, Milwaukee. Aluminum trays, Ekco-Alcoa, Wheeling, Ill.

8 The versatility of cellulose bands is pointed up by their use for packaging General Electric's night lights. The inexpensive bands are slipped over the assembly and shrink to a tight fit. The band anchors the bulb firmly to discourage pilfering, yet it can be easily discarded prior to use. Trademark and spot for price markings are printed on back of the bands. "Cel-O-Seal" bands, Du Pont, Wilmington, Del.

9 An appropriate Pennsylvania Dutch theme and a new mother-daughter trademark reproduced directly above bowl-shaped windows are designed to create an image of home-baked freshness on packages for Mrs. Wagner's pies. The design, in two shades of blue on white, is used on 8- and 6-in. cartons and on glassine packages for 10-cent 4-in. pies. Design, Jim Nash, New York. Cartons, Whitney & Co., Leominster, Mass. Glassine, Beacon Paper Bag Co., East Paterson, N. J.

10 An economical corrugated box solved Revell, Inc.'s problem of a container to protect its fragile miniature plastic display models, shipped to 78 different countries, at a cost in line with the products. The Jupiter C missile illustrated has 178 parts. Inner corrugated separators are fashioned to hold each model securely in place and keep delicate parts from being jarred en route. Container, Continental Can's Fibre Drum & Corrugated Box Div., New York.

Liquid-tight poly-coated carton

Potential economies indicate a promising future for new rectangular container, polyethylene coated inside and out, making its debut in the milk industry

Convenient opening *of polyethylene-coated carton makes use of device first developed for a vinyl-coated container—a simple corner strip of coated foil that prevents a board-to-board weld and gives user a good grip on the tab.*

There's a bright future shaping up for the latest combination of plastics and paper designed to solve a packaging problem. This time the result is a rectangular paper milk carton coated inside and out with tough, durable polyethylene. Its producer believes that this new container will give the dairy industry and its customers the handy disposability of the paper milk carton without the costly nuisance of leakage during distribution and use.

While this carton is not the first polyethylene-coated container for milk—a tetrahedral package has been on the market for several years—it is the first example in a conventional rectangular shape. And it suggests wide possibilities for packaging a variety of liquid products.

Now produced for the first time in commercial quantities by a supplier with 10 years' experience in the manufacture of vinyl-coated cartons, the new rectangular milk carrier appears to offer immediate solutions to two major problems that have long plagued manufacturers struggling to develop just such a container:

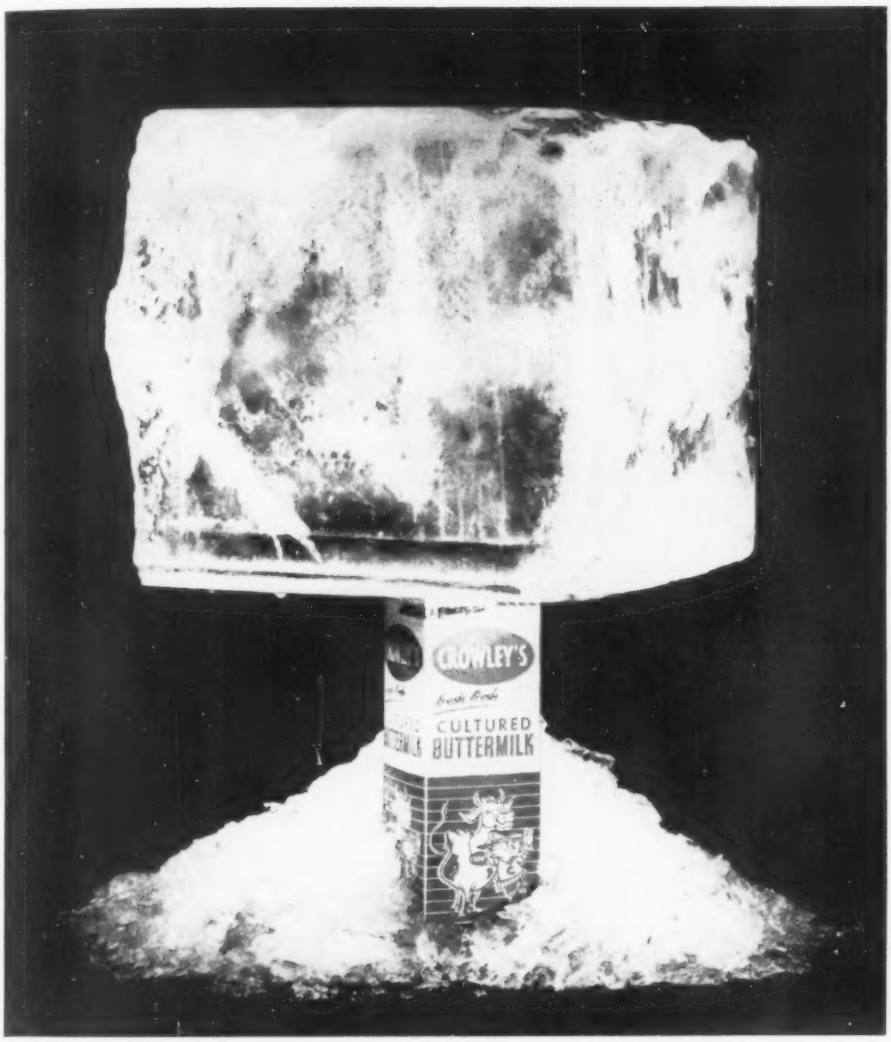
1. It carries a minimum and economical coating of polyethylene that gives maximum protection to dairy products and is fully printable by conventional techniques.

2. It can be tightly heat sealed on inexpensively modified conventional equipment supplied by the carton manufacturer. Previous problems in the heat sealing of polyethylene-coated cartons are now considered solved.

At the same time, this new carton, reportedly, offers two advantages not found in present wax-surfaced cartons: (1) polyethylene is highly scuff resistant and will not rub off on clothes or refrigerator shelves and (2) the plastic has great flexibility at refrigeration temperatures and will not flake off in the product.

Still to be worked out, however, is a competitive price. The new containers carry a premium of nearly $3 per 1,000 over conventional quart-sized waxed or vinyl-coated cartons. But the supplier reports that larger and faster coating equipment could reduce this price differential. If the price becomes truly competitive, observers predict that within four to five years the majority of quart and two-quart milk cartons will be coated with polyethylene.

Here is the basis of their expectations. Because of the great yield of the new coating—which is only 0.5 mil on each side of the board—it is said to cover



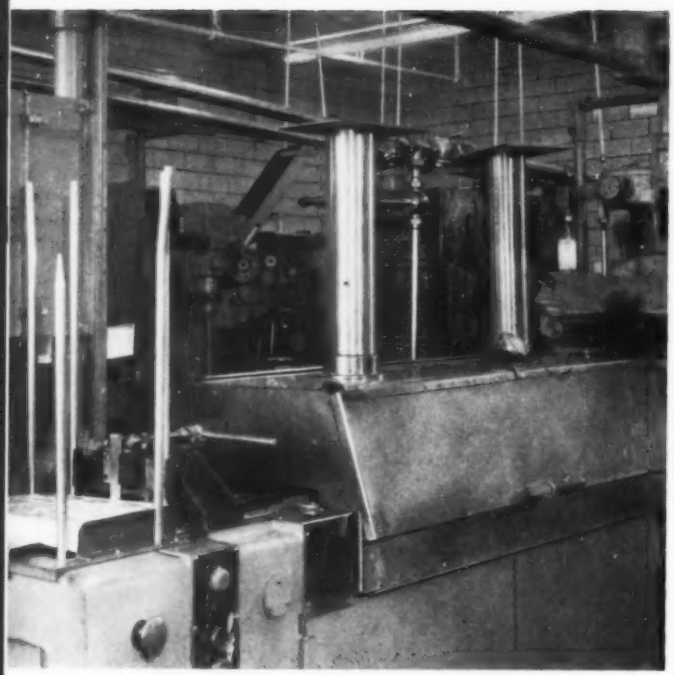
Resistance *to ice and water afforded by this new polyethylene-coated carton is dramatized by its rigid support of a 40-lb. cake of ice under adverse conditions of temperature and moisture. The container is being used for specialty dairy products that require extra-long shelf life or long-distance shipping protection.*

about 50% more square feet of board per pound than vinyl and will cover five times more area than a pound of wax. This produces an actual saving, which will become most significant in high-volume output, despite the fact that waxes used for coating cost only one-quarter to one-third the price of polyethylene resin.

The reason for this difference in yield is that cartons taking wax coatings use a porous bleached food board, which the wax literally permeates while forming a heavy surface layer. In both vinyl and polyethylene coatings, a special sized food board keeps plastic coatings on the surface.

Another economy lies in the reported solution of the problem of recovery of paper fibre from coated scrap that is eliminated in trimming and die-cutting operations. Drawing heavily on experience gained, the supplier says he has been able to recover close to 90% of the fibre from polyethylene-coated waste.

The new polyethylene-coated carton has had extensive field tests since its initial development about two years ago. Now 26 dairies in various parts of the country have adopted the cartons for their products. Of these, five use the cartons for all of their output. However, these dairies face problems of distribution over great distances in the Southwest



Pre-heating *of polyethylene-coated body blanks is performed on this first section of forming, filling and sealing machine specially modified for these new cartons. Blanks are fed from hopper (left), sterilized and then heated by radiation from electric strip heaters in the hooded unit at right.*

and Northwest that force them to depend on an exceptionally rugged container. For a picture of use by an average dairy, a company with more local distribution is a better example.

Such a dairy is Crowley's Milk Co., Inc., in Binghamton, N.Y., which has adopted the polyethylene-coated milk cartons for buttermilk. This dairy cites the fact that this container has enabled it to ship this high-acid product over far greater distances. This could not be accomplished with previous containers, it is said, because buttermilk's high acid content poses a chemical problem for both waxed and vinyl-coated cartons. Toughness and resistance to low-temperature cracking enables the polyethylene-coated carrier to stand up under rough handling and shipping and so provide the four to five days of shelf life needed for buttermilk and other acid products such as orange juice and orange drink, which are packaged in the new containers at several other dairies.

Its superior shelf life has also led to use of this container for cream and chocolate drinks at some dairies where less frequent bottling schedules demand a longer shelf life.

While exact field comparisons are difficult to make, Crowley's reports an average of 2% leakers in conventional waxed or vinyl-coated cartons on certain difficult shipments. Because of the added protection afforded by polyethylene, this damage is reportedly reduced in similar shipments of the new containers. Both Crowley's officials and other industry experts put the general average of leakers among all milk cartons at only 1%. Even so, there is a tremendous saving to be gained in the elimination of this costly annoyance.

The forming machine

In dairy operations with this supplier's vinyl-coated cartons, blanks are fed and set up by machine in the dairy and the bottom is attached automatically before filling. The square top of the container is sealed in place as the last operation.

At Crowley's, the new polyethylene-coated cartons are formed, filled and sealed in much the same way, though several alterations have been made in the machine to account for the thermoplastic nature of polyethylene and to take advantage of its strong sealing characteristics.

The prime problem was to obtain a strong seal between two polyethylene surfaces, despite the insulating quality of the heavy, 19-point cylinder board used for the carton body, which impedes heat transfer from the usual impulse or bar heat sealers. Gas flames used to soften vinyl coatings are too erratic for polyethylene.

This difficulty is by-passed with a system of preheaters—doughnut and bar-shaped units over or under which the body and end blanks pass but do not touch. These units heat the polyethylene to the softening point and the final seal is made with electrically heated jaws that press the heated paper against cooled mandrels. As in the original machine, gas ribbon heaters are used to sterilize the inner surface of the board, but the blanks are passed over these at a speed that eliminates burning.

Before the carton body is broken and sealed, a strip of polyethylene-coated 0.0015-in. foil is lightly sealed to the blank to serve as an opening device for the pour spout. The bottom, which is next attached to the body, is a special wet-strength sheet that is coated on the outside with a special resin formulation to resist water even in the polyethylene-coated cartons. The inside is, of course, covered with polyethylene.

After filling on a conventional double-track gravity filler, the top—a lightweight bleached food board—is sealed in place and the filled carton is ready to go.

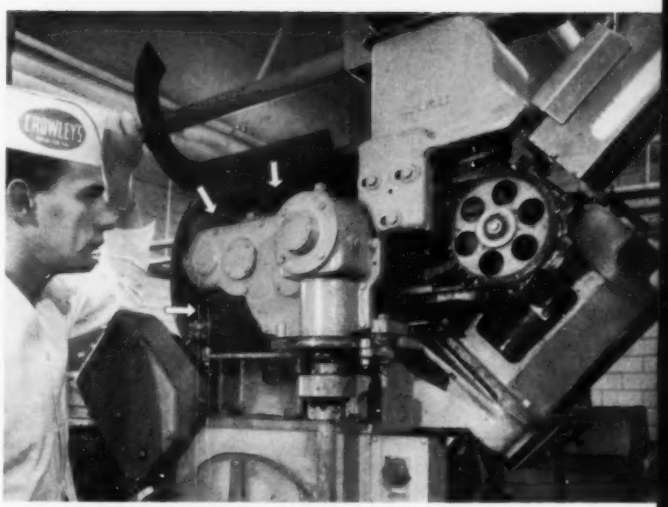
While the Crowley's carton design has a fairly large pattern and, in common with most dairy

cartons, contains little fine detail, the flexographic printing on this container shows the quality obtainable on the new surface. The surface satisfied the pressure-sensitive-tape pull test, has good abrasion resistance and is not limited in color. The printing is done on top of the polyethylene. This naturally requires surface treatment of the polyethylene, but excessively high extruder temperatures, which give an oxidized though highly printable surface, are not used.

Until its price drops, the container will undoubtedly be used only for very hard-to-package specialties or for general dairy products where shipping distances demand extraordinary protection and long shelf life.

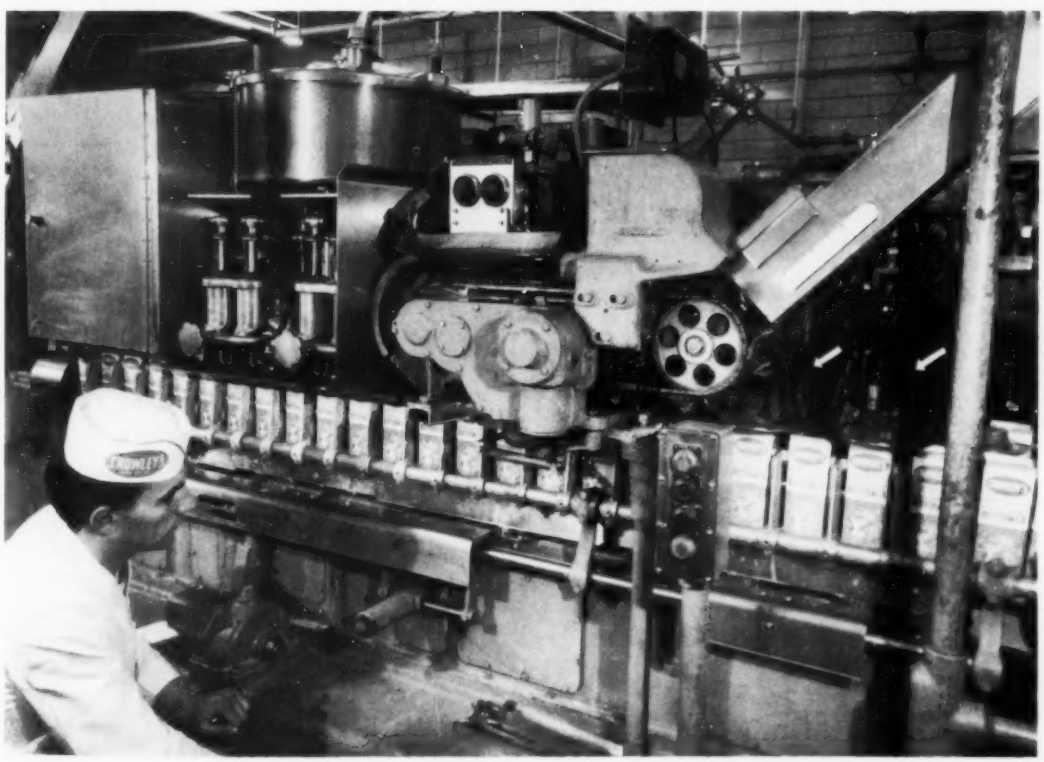
But the protective properties and toughness of this increasingly useful plastic—plus the competitive character of both the polyethylene and milk-carton markets—seem to indicate an increasingly favorable economic outlook and much wider use in the near future for this new disposable milk carton.

SUPPLIES AND SERVICES: Polyethylene-coated cartons and forming-filling-sealing machine by Sealright, Inc., Fulton, N. Y., using DuPont's Alathon 14 resin.



Bottom blanks *follow a looping course from feed (top right) past sterilizing flame and under doughnut-shaped heaters (arrows) to be attached to the mandrel-formed body at lower right. Radiant electric heaters enable polyethylene coating to be pre-softened under close control and insure tightness in the final seal.*

At the filler, *cartons are divided into two lines. The filled containers receive tops, which are sterilized and pre-heated (center) in same way as bottoms, and are finally heat sealed by chucks (arrows).*

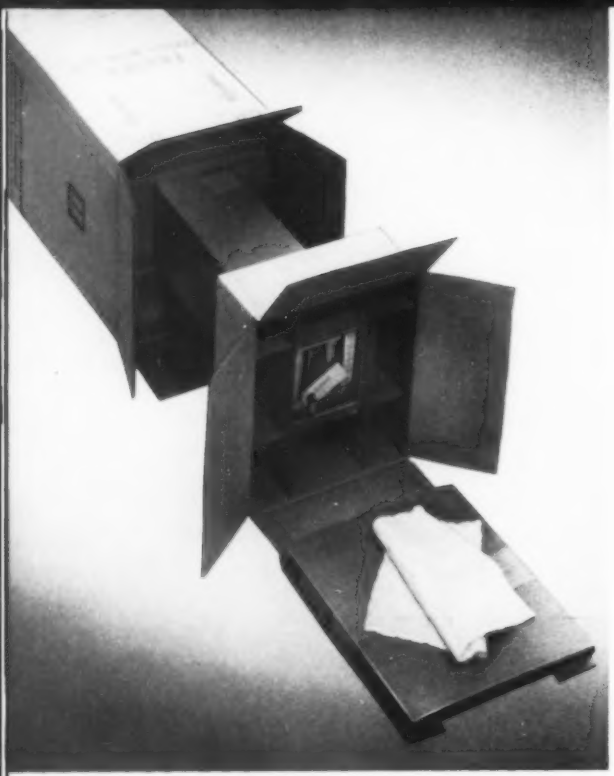


THE PLEDGE OF PROMPT DELIVERY

Packers and manufacturers all over the country have confidence that glass containers and closures ordered from Anchor Hocking will arrive on time! It's a trust that comes from knowing through experience Anchor Hocking's dedication to service. And it's a trust that is well founded. First, there are Anchor Hocking's plants which are strategically located throughout the nation to reduce transportation time. Then, there's Anchor Hocking's tremendous production capacity which speeds your order through the plant. And lastly, there's the Anchor Man—*your* man—the man who follows your order so closely because he is pledged to serve you! So contact an Anchor Man now! Anchor Hocking Glass Corporation, Lancaster, Ohio.

ANCHOR HOCKING

Put an Anchor Man on your team



Lower cost, better protection

A double bull's-eye—25% reduction in over-all packaging cost and greatly improved product protection—has been scored by Brown Instruments Div. of Minneapolis-Honeywell Regulator Co. since its adoption of a corrugated shipping container with a built-in corrugated "cradle" for a line of sensitive recording and control instruments costing up to $1,200. The company also notes that its new shipper weighs 6 to 7 lbs. less than a former excelsior-packed carton, for substantial savings in freight charges.

Brown Instruments' experience clearly indicates how other companies marketing fragile or expensive products can upgrade package quality and at the same time whack a big chunk out of the cost factor. The specially designed interior section of the firm's shipping container consists of four die-cut inserts that hold the instrument securely in suspension. Shocks received during handling are absorbed and deflected by the cushion of air surrounding the product. The fact that its new shipper can be loaded faster than the old contributes to cost reduction, says the company. *Shipper by Union Bag-Camp Paper, 233 Broadway, New York 7.*

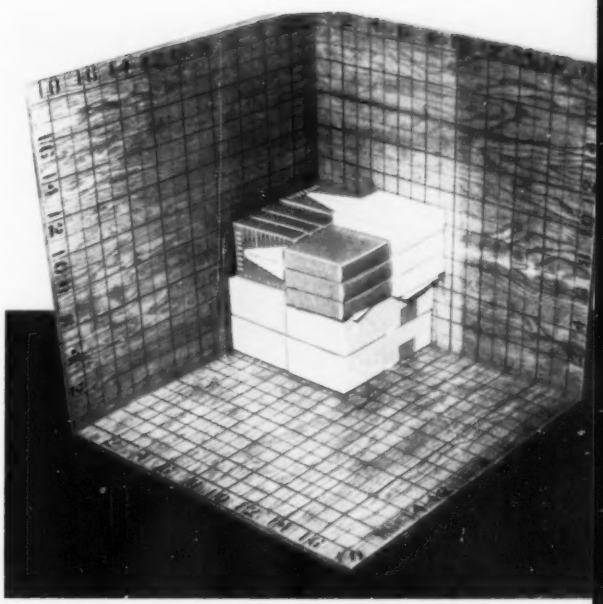
COST

Baling system affords big shipping economies

A 40% reduction in packaging-material costs is reported by Michigan Peat Co. since going to a semi-automatic baling system for loading polyethylene pouches of Baccto peat into heavy-duty kraft shipping bags. Under the former set-up, pouches were loaded by hand into corrugated shippers. This company's cost-cutting new packaging operation can be adapted by packagers of such bagged, non-rigid products as dried vegetables and soft goods.

At Michigan Peat's plant, an employee places six filled pouches (two tiers of three each) onto the baling machine's loading platform. The pouches then are automatically compressed and inserted—still under compression—into the shipping bag. Once inside the container, pressure is released and the individual packages expand to their normal dimensions, giving greater rigidity and strength to the master shipper. According to the company, the six-pack bale will not crumple under high humidity, nor will it lose its shape in stacking. The packager adds that the lighter weight and reduced cube of its new bale also cut shipping costs. *Baling machine and bag by St. Regis Paper Co., 150 E. 42 St., New York 17.*

Time and board saver



Case loading odd lots of individual packages for shipment can involve loss of employee time or waste of packaging material. Time loss is caused by trial-and-error selection of the right-size container; packaging-material waste is the result of using an oversize shipper and stuffing the empty spaces with wadding. In either case, such uneconomical practices lead directly to increased packaging costs.

A way to eliminate at one stroke both of these problems is suggested by a simple "Package Dimensional Guide" developed by the Naval Supply Depot, Mechanicsburg, Pa., for its parcel-post packaging operation. The device is a three-sided board bin that lets the packer know at a glance the exact-size shipping container needed for a specific group of packages. Each of the bin's three panels is printed with horizontal and vertical lines an inch apart, to permit precise square-inch readings for any portion of the panel. When a group of packages to be shipped as a unit is stacked in the corner of the bin, the size of shipping container needed is determined simply by reading the length, width and height dimensions indicated by the stacked packages.

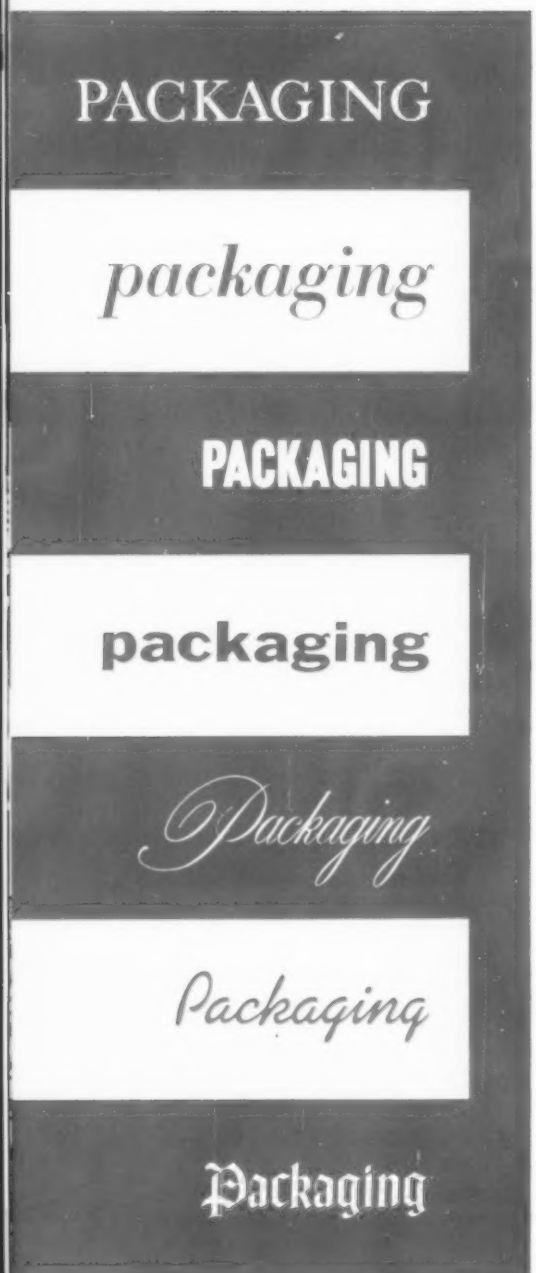
CUTTERS

Film pouch cuts costs 50%

The improved protective properties, machinability and merchandising appeal of today's thermoplastic films give packagers in many product fields a broad opportunity to slash costs while offering a sales unit that is attractive to retailers and consumers alike. An example is the new polyester-laminated-to-polyethylene pouch adopted by DeWitt Products for 1-lb. quantities of glazing compound. According to the company, its new package represents a 50% saving in packaging-material costs alone over the metal can formerly used. And because of its flat shape and light weight, shipping costs have been cut 8%.

The heat-sealed, tear-open pouch is said to offer adequate protection for the viscous product over long storage periods. It can be reclosed after first use by folding over the film at the opening and fastening it with a paper clip. As an added inducement to sales, the film's transparency and flexibility permit shoppers to see and "feel" the product. From the retailer's point of view, the film package is a winner because it is flat and stacks easily, for substantial savings in shelf space. *Printed film pouch by Milprint, Milwaukee.*

WHAT YOU SHOULD KNOW



Letters *do more than spell words. Each of the examples above creates a different impression of "packaging." These basic lettering styles may be varied in form and most can be extended, condensed or italicized.*

The function of package appearance in today's self-service merchandising is clearly understood in at least broad terms by nearly everyone concerned. Surveys warn of the keen competition for attention and of the split-second opportunity seized or lost as a result of design. Many planners assign top priority to eye appeal, yet many poorly designed packages still line the shelves.

A company's final packaging decisions are usually made at the top level, but a wise choice there involves more than the usual business questions. To pass judgment on the package designer's choice of lettering, decision makers should assure themselves that the lettering is (a) relative to the product, (b) appropriate to the market and (c) symbolic of the company. This requires at least a rudimentary understanding of the principles and subtleties of design.

Package design remains a creative effort, dependent upon a knowing treatment of the three elements of color, layout and typography. To the uninitiated, color and layout may seem by far most important, but the three cannot be realistically divorced from one another. Letterforms, the basic units of typography, are as significant as the other elements in defining the over-all impression that the design creates. As design becomes more sophisticated, choosing letterforms successfully and using them properly have become critical functions in package planning.

As a utilitarian art, lettering, like the functional expressions of modern architecture and industrial design, can possess great attractiveness. However, while striving for beauty, it is possible to overlook the primary function—*communication*. Lettering for package design is effective in this respect when it clearly presents the intended message and creates an appropriate mood for the product.

Rather than have promotional and informative copy engraved on the head of a pin, the not unreasonable desire of most manufacturers is that the copy appear on the package in characters having clarity and impact. From this standpoint alone it would not be especially difficult to select suitable letterforms. One could easily choose large, bold letters for maximum legibility, but sheer size is never entirely satisfactory in drawing interest. With so many present-day products bearing short, simple names, the designer must use distinctive letterforms as well in order to make sense and create excite-

*Package designer, Film Dept., E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

ABOUT LETTERING

When top management faces a choice of package designs, its decision makers should understand these principles of creative typography to recognize lettering that will best convey a message

*By G. Mallet-Prevost, Jr.**

ment. The business executive must clearly understand this objective and its execution.

Four basic lettering styles form the basis upon which the multitude of typographical variations are built. Starting off is the classical *Roman* letter, characterized by both thick and thin strokes and the familiar serif construction at the top and bottom of the letter. The *sans-serif* letter has more equal thickness of stroke and gets its name from the lack of serif. *Script* ranges from formal Spencerian to present-day handwriting and includes casual brush styles. *Text* is probably the least legible of the basic typographic styles, but it is quite effective for certain applications.

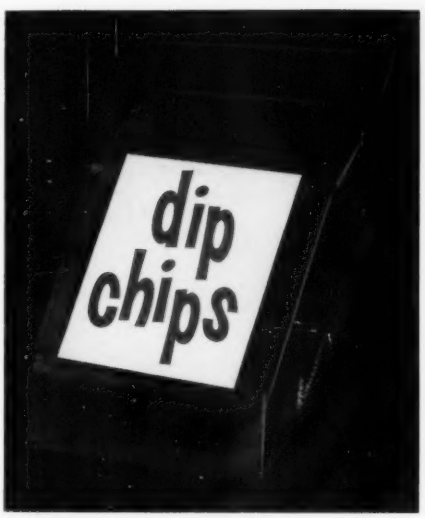
These basic styles barely show the endless forms lettering may take. Practically all letters may be *extended* or *condensed*. In addition, they may be *italicized*.

A familiarity with the basic lettering styles and their variations, plus a constant awareness of the need for legibility, prepares the package designer to choose lettering appropriate for the purpose. Beyond that, he has to assure decision makers that the lettering is appropriate for the product, the market and the company.

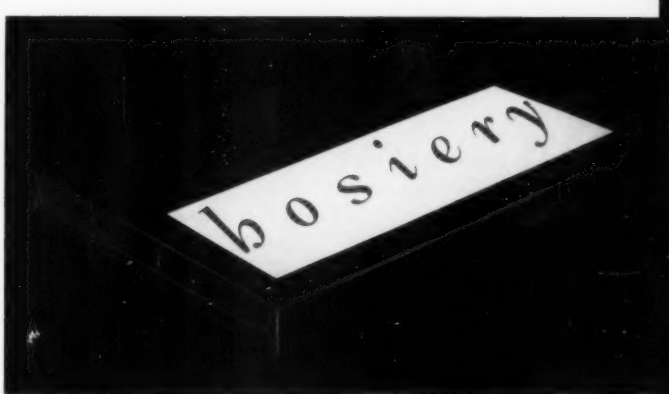
For the designer these considerations are added to the major problem of selecting one specific style of lettering over another. The truth is that no realistic rules exist to govern this choice. Intangible as they may seem, the taste, imagination and experience of the designer are the factors necessary for a successful job. If hard and fast rules were constant, package design could become a "do-it-yourself" job for the shipping room and it is possible that shelves would appear as so many newsstands with the packages merely identical headlines.

No designer worth his T-square assumes that only one lettering style correctly conveys a specific mood. Purely masculine or feminine letterforms are a myth. A woman may choose script lettering for a formal engraved announcement due only to tradition and not for any particular feminine qualities. Packages aimed toward the female market show a wide variety of lettering styles, many of them having no real connection with the fair sex, yet successfully attracting their attention.

Regardless of this, it is safe to say that some impressions can be formed from certain lettering styles without necessarily reading the words. Letters, and the words formed by them, can be pleasant, attractive, modest—even irritating or dull. The variety



Informality *is suggested by the casual lettering style suggested for this product. The connotation of a relaxed atmosphere is enhanced by staggered arrangement of the letters.*



The finishing touch *that hosiery lends to dress can be implied by the precise, neat form of Roman italics, letter spaced to help create an impression of good taste.*

A functional product *calls for such business-like lettering as this sans serif, condensed and elongated to make the entire package distinctive in appearance.*

of feelings ranges from the quality and integrity suggested by *Roman* to the cleanliness and efficiency of stark, functional *sans serif*. To many, fancy *script* may convey a feeling of elegance; to others, according to individual tastes, similar script might appear cheap or gaudy.

The value of appropriate and legible lettering is further enhanced by emphasis—the use of devices such as spacing and layout, variations in size and style of lettering, and by using colors.

Industrial designer Raymond Loewy once suggested that attention may be effectively gained by throwing an egg into a revolving fan, but he quickly added that merely to do the unusual for no apparent reason is insufficient. Here again, the disciplined taste of the designer is the determining factor. To achieve emphasis at the expense of logic or function is to defeat the purpose. In addition, nothing is gained for very long by offending consumers' tastes. A requisite of good design is that restraint and simplicity be exercised and that the number of lettering styles used on a package be reduced to a minimum. Unrestrained display can only result in adding to the eye's confusion.

At times "negative emphasis" is a successful device. A whisper may work advantageously to invite closer inspection, where a more positive command might cause annoyance and lead to rejection. Sometimes the isolation of copy in a large blank area gives a certain force to the whisper, since, in graphic design, unoccupied space is not wasted space. This type of understatement is especially applicable to those particular products which require a highly styled approach.

With these principles in mind and recognizing that there are no rules to follow, look at the drawings of hypothetical packages accompanying this article. They have been prepared to illustrate some of the considerations that properly affect a design decision.

Potato chips, for example, might immediately suggest an informal, relaxed atmosphere. While a casual lettering style may not be so legible as a more formal style, the staggered arrangement of the sample lettering strengthens the mental picture suggested by the product. Obviously, an entire paragraph of loosely arranged lower-case letters would be virtually unreadable. However, with brief copy and a simply designed layout, legibility of the lettering is not seriously impaired and the nature of the product is enhanced.

Since hosiery is purchased more for what it does than for what it is, the finishing touch that it lends to a costume can be elegantly conveyed by letterforms just as effectively as the informality of potato chips. By resisting the temptation to use script for femininity and relying instead on Roman italics, a certain preciseness and neatness is achieved. Roman letters, inherently quite legible even in reduced scale, are letter spaced here to add to the delicacy of the product and to help deliver an impression of good taste.

Nails on the other hand, are strictly functional. There is little concern with appearance or quality. A business-like sans-serif letter is appropriate. Distinctiveness for the entire package is achieved by condensing the width of the letters. However, in creating an effect such as this, it is important to know when to stop. Elongate the letters too much and they become illegible.

Another designer might prepare these packages quite differently while motivated by this same reasoning, or even by other lines of thought which can lead to just as successful a conclusion. It is this kind of conscious approach at every decision-making level to the choice of letterforms that will contribute much to the ultimate effectiveness of a package.

These sample packages are evidence that several factors are often involved in legibility. The weights and proportions of letters, [*Continued on page 153*]

"15% sales increase due largely to Knox-designed jar," says president of leading gourmet foods firm

The handsome fluted glass packages shown above were designed by Knox Glass, Inc. in 1957 for a leading Eastern manufacturer of gourmet foods.*

According to the firm's president:

"Sales increased nearly 15% after changing to the fluted jar which Knox Glass designed exclusively for us.

"The eye-catching salesmanship of the jar, which has no label other than the closure, permits the purchaser a clear, clean view of our appetizing products, such as Potato Salad, Cole Slaw, Macaroni Salad and Vegetable Chow Chow. Knox's strong design and the excellent quality of the glass we buy from Knox, combine to make this a wonderful package.

"We've been a Knox customer for nearly seven years and buy almost exclusively from them. Special quality products such as ours demand high quality glass and exceptional service. This we get from Knox."

Find out more about how Knox can meet your glass container needs — contact Knox Glass, Inc., Knox, Pennsylvania.

*Name available on request.

the new/**KNOX GLASS**

Old and new *containers show package evolution from paper-labeled bottles through plastic squeeze bottle with offset design (above) to new heat-transfer-decorated polyethylene bottles (right). Particularly evident in new labeling is crispness of lettering, fine detail in insect illustrations.*

U-shaped line *for decorating bottles employs one operator. Plastic containers travel by conveyor to the heat-transfer machine (foreground) and then to the post-heating oven (background).*

PHOTO DENNISON MFG. CO.

Transfer labeling

The economies of hot-transfer labeling, which only last year were extended from flat films to oval polyethylene squeeze bottles*, are now applied to round polyethylene containers. This achievement results from development of two machines that:

1. For the first time handle round bottles at a speed of 65 per minute and increase labeling speed for oval bottles to 100 per minute, a 35% jump over the prototype machines.

2. Impart a gloss to the heat-transferred label that in appearance enables it to compete favorably with the more expensive silk-screened designs.

In addition, printing techniques for these special labels have been so improved that intricate designs are now possible.

First packager to benefit from these developments is Union Carbide Chemicals Co., New York, for its "6-12" brand insect repellant. The company has recently switched from an extruded and spun-welded polyethylene squeeze bottle, decorated by offset printing, to a blow-molded container, custom decorated by the supplier, using a heat-transfer label. Union Carbide estimates that the combined change in bottle and decorating techniques has saved 16% in package cost. Involving a wrap-around label, gravure printed in four colors with some extremely fine detail, the custom transfer-labeling job costs less than $10 per 1,000 bottles. The packaging change coincides with the company's intention to bid for a bigger share of the home consumer market. Previously, the product was sold primarily to fishermen and other sportsmen.

The new machine, available to any packager, is a radical departure in design from the slower proto-

* See "Transfer Labeling of Squeeze Bottles," MODERN PACKAGING, April 1958, p.106.

New machine applies intricately designed wrap-around labels to round squeeze bottles for Union Carbide insecticide and decorates oval containers 35% faster than original equipment

in the round

type unit used previously for the oval bottles. The essential elements—feed and take-up rolls for the paper-mounted labels and a hot-die transfer mechanism—are now mounted vertically instead of horizontally so that containers can be fed and labeled vertically and continuously from a conveyor.

Entering the labeler from the feed conveyor, the bottles pass into a turret. Here, an air cylinder forces each bottle down into a revolving cup, which rotates the container and indexes it so that the mold marks are always in the same position with respect to the label. A second air cylinder then engages the bottle, holds it in place and inflates it with air to provide a firm surface for the labeling.

Labels, printed on a strip of kraft paper that is pre-treated with a heat-release coating, are fed from a roll around an indexing cylinder. The latter has studs that engage holes in the paper strip for proper positioning. The web then passes around a walking beam—consisting of two arms positioned on either side of the container turret—that imparts an intermittent motion to the web and synchronizes it with the rotating bottles in the turret. Two rotating heated platens, synchronized with the bottles, apply heat and pressure through the back of the moving paper web to release the coating. Labels transfer to the bottles by selective adhesion. As the bottle leaves the labeler, the waste-paper backing is rewound on a drum after passing around the second arm of the walking beam and a live timing spindle.

Labeled bottles are delivered on a belt parallel to the feed conveyor into a special post-heating oven, which improves adhesion and gloss. Here bottles are subjected to 190 deg. F. temperature for 3 min., which causes the heat-release coating to flow—smoothing the label surface and improving its appearance. This heating cycle reportedly does not affect the plastic container.

The round insecticide bottles use a single wrap-around label that measures $2\frac{3}{4}$ by $4\frac{5}{8}$ in. Oval bottles with back- and front-panel labels have been handled at fast speeds on twin labelers.

The "6-12" repellent was launched in 1945 in a paper-labeled glass container. The switch to a polyethylene bottle was made last year to reduce breakage and speed dispensing by the consumer. A plastic fitment in the top of the bottle gives a stream of the insectant repellant.

Degradation of the offset design was said to be a problem on the original polyethylene bottle because of the repellant's active ingredient. This is reportedly not a problem on the heat-labeled bottles because of the ink formulation and the release coating that serves as a protective overcoat.

With this latest breakthrough in heat-transfer labeling, the process is believed to be adaptable to almost any shape of plastic container. This flexibility of application—added to the vastly improved gloss and fine detail in the improved label—should enable this low-cost decorating technique to find applications throughout packaging.

SUPPLIES AND SERVICES: "Therimage" machines and labels by Dennison Mfg. Co., Framingham, Mass. Blow-molded polyethylene bottles and fitments by Continental Can's Plastic Div., 100 E. 42 St., New York 17.

Heat-transfer unit *employs a rotary head (right center) and two air-operated pistons to control and spin bottle for labeling. Printed designs on kraft paper strip are fed from roll (upper left) around indexing drum and walking beam. Heated platens (arrow) soften release coating on paper and transfer label to bottle. Waste paper rewinds (lower left).*

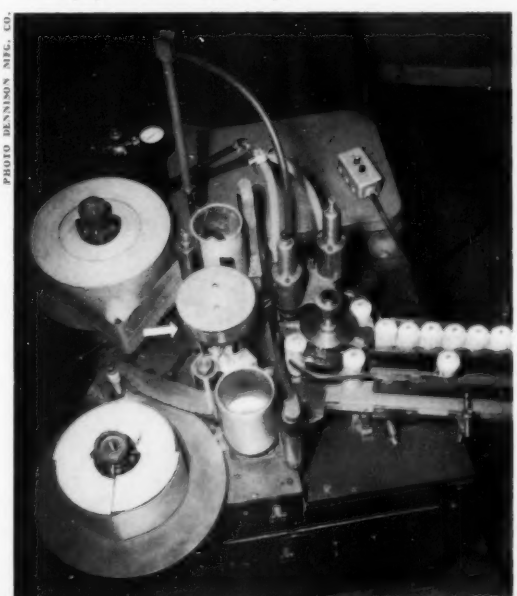


PHOTO DENNISON MFG. CO.

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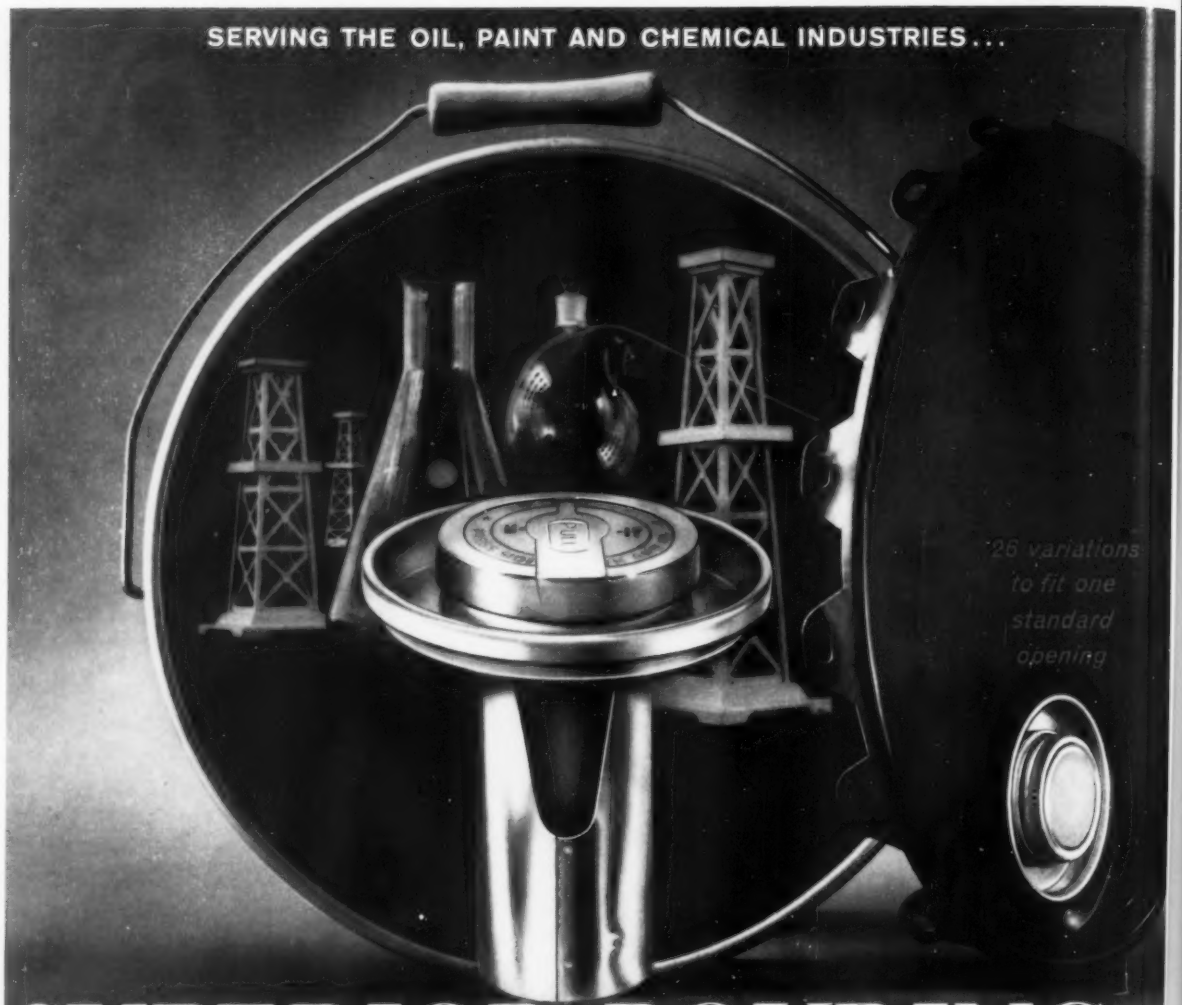

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It has all the features guaranteed to win firm approval from packagers and end-users alike: **ECONOMY • SMOOTH STEADY FLOW • POSITIVE SEALING** – leakproof, airtight **• EASY APPLICATION** – with the Tri-Sure clinching tool **• SAFE STACKING** – closure lies below pail chime **• RELIABILITY** – attested by the famous "Tri-Sure" trade-mark.

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Antioxidant effect in boxboard

Experiments show that even low-fat dry cereals can benefit significantly when inside carton surface is treated

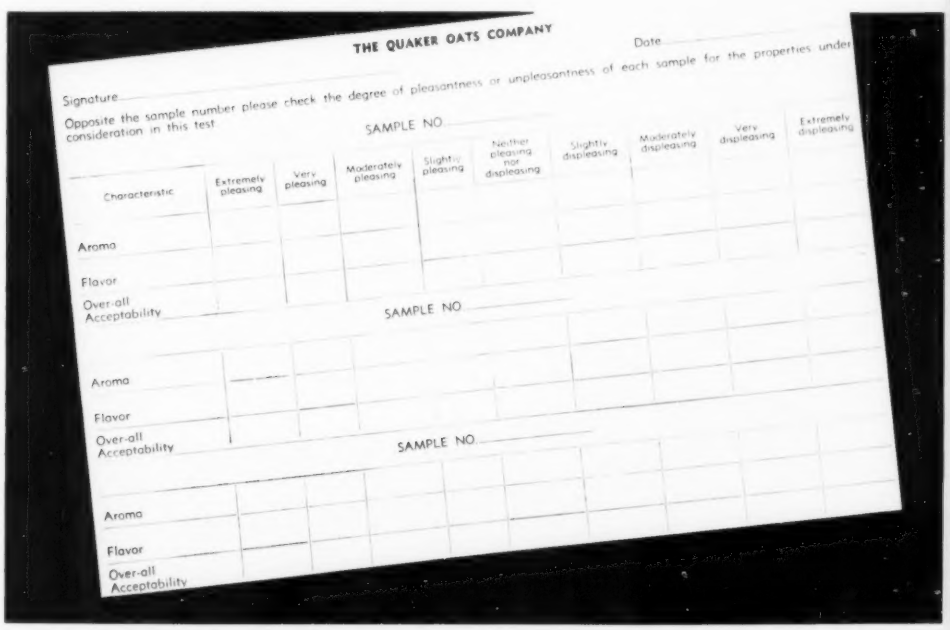
*By E. F. Caldwell and Sylvia Shmigelsky**

Effectiveness of phenolic antioxidants in preserving food fats and the food products made from them has been well established for many years (4).† More recently these antioxidants have also been advocated for application to packaging materials (2, 3, 6). Paperboard is high in trace metals such as copper and iron, especially if it is made from reworked material (7). These elements are known to catalyze the atmospheric oxidation of fat. Small quantities of fat contact them by being absorbed into the board from the food product, a process which at the same time increases the effective surface area of fat exposed to atmospheric oxygen.

One obvious way to head off this process and extend shelf life is to prevent the fat from reaching the board by means of a greaseproof coating or liner. This approach has been quite generally followed with certain dry baked products such as soda crackers, where the fat content is high enough

*Of John Stuart Research Laboratories, The Quaker Oats Co., Barrington, Ill. From a paper presented at the 18th Annual Meeting, Institute of Food Technologists. Reprinted by permission of *Food Technology*.

†Numbers in parentheses identify References appended.



THE QUAKER OATS COMPANY

Signature Date

Opposite the sample number please check the degree of pleasantness or unpleasantness of each sample for the properties under consideration in this test.

SAMPLE NO.

Characteristic	Extremely pleasing	Very pleasing	Moderately pleasing	Slightly pleasing	Neither pleasing nor displeasing	Slightly displeasing	Moderately displeasing	Very displeasing	Extremely displeasing
Aroma									
Flavor									
Over-all Acceptability									

SAMPLE NO.

Aroma	
Flavor	
Over-all Acceptability	

SAMPLE NO.

Aroma	
Flavor	
Over-all Acceptability	

Figure 1. *Test form used in evaluating samples on the hedonic rating scale.*

Figure 2. *Relationship between numerical and verbal designations of the hedonic rating scale.*

to stain paperboard. It is not completely effective and has not generally been considered worthwhile for cereals because of the small amounts of fat they contain.

Another approach is to incorporate an antioxidant in or on paperboard or other packaging material to prevent fat oxidation in at least one place where it probably would otherwise occur. Experimental proof of the effectiveness of such a treatment has generally rested on the results of accelerated storage tests of treated or untreated material smeared with lard (3), or of baked products such as cookies (1) packaged in treated versus untreated board.

In the study now reported, the stabilizing effect of antioxidant treatment of paperboard has been shown to extend to certain dry cereals even though their fat contents are very low. The cereals were packaged under mill conditions in commercially treated board. Appropriate controls were present and after accelerated storage all products were evaluated organoleptically under carefully controlled conditions by a group of non-expert judges using the hedonic rating scale system.

Materials and methods

Paperboard treatment. Double-bleached manila-lined chipboard was treated by the board manufacturer with butylated hydroxyanisole prior to being made into 1-oz. individual cereal packages. The antioxidant was applied to the inside surface of the board in an amount equal to 0.05% of the board by weight. This was accomplished by spraying a 25% oil solution of butylated hydroxyanisole emulsified in water onto the back of the sheet as it passed through a rotary printing press.

Packaging and storage. Three types of flaked dry cereal were packaged in this material, each individual package being overwrapped with 300 MST cellophane. Control packages of untreated board were also prepared. None of the packages was printed on the outside. Shelf-life tests were conducted at room temperature and at 100 deg. F., with ambient humidity in each case.

Panel evaluation. Organoleptic evaluations for aroma, flavor and over-all acceptability were made after the packaged products had been in storage at 100 deg. F. for 18 weeks and 52 weeks, and at room temperature for 52 weeks. All tests were conducted under controlled conditions, using the same procedure. Panels of between 24 and 35 non-expert judges were selected at random from the laboratory staff. The judges had no previous knowledge of the test problem; they were told only the type of cereal to be judged. All packages were coded, using a random lettering system.

At the time of testing, each judge was given an unopened treated package of cereal and an untreated control package of the same cereal. After the transparent overwrap had been broken, each sample was evaluated for the three characteristics on a nine-point hedonic rating scale, using the form illustrated in Figure 1. No milk or other food was used in any test, but the judges were allowed to sip water between samples.

Statistical analysis was based on the technique described by Peryam and Girardot (5), whereby the verbal designations of the nine-point hedonic rating scale are assigned numbers, in this case ranging from minus 4 (extremely displeasing) to plus 4 (extremely pleasing). This is illustrated in Figure

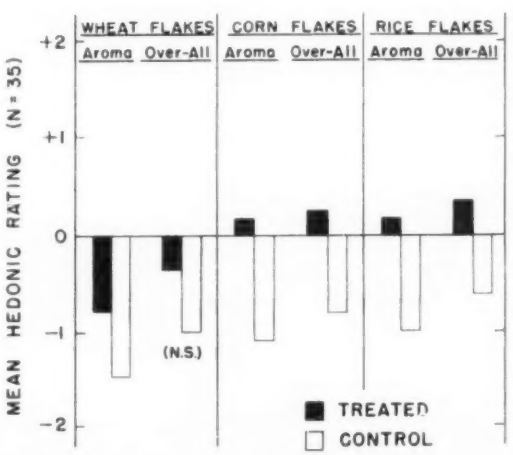


Figure 3. *Effect of antioxidant treatment of paperboard on the mean hedonic rating of three cereals after storage at room temperature for 52 weeks.*

2. Mean ratings were calculated for each characteristic of each product and subjected to analysis of variance in order to test the significance of any differences observed.

Results

Results of the storage test at room temperature are given in Figure 3. In this graphical presentation, all differences not statistically significant at the 5% level or better are marked "N.S." All cereals kept in the antioxidant-treated package material were improved in acceptability over the corresponding controls. Mean flavor ratings closely paralleled those for aroma and over-all preference, and consequently were omitted in the interests of conciseness.

Results of the accelerated storage test at 100 deg. F. are given in Figures 4 and 5. Here it may be seen that the board treatment is beneficial to wheat flakes and corn flakes on the basis of an 18-week test, although its antioxidant effect was lost after prolonged storage at the elevated temperature.

Discussion

Results of this study clearly demonstrate that application of an antioxidant to the package material can improve the storage stability of flake cereals despite their low fat content. This improvement is particularly apparent in wheat and corn flakes during the early months of shelf life. The relatively low mean ratings obtained for all samples may be attributed to the absence from the test program of milk and sugar or other of the food products which are commonly eaten along with cereals.

While the antioxidant chemical used in this study was butylated hydroxyanisole, subsequent developments (1, 3) have indicated that butylated hydroxytoluene, which is cheaper as well as being essentially odorless and tasteless, may be equally effective. Similarly, use of a roll application on the dry sheet of paperboard as it leaves the paper machine (2, 3) would appear to have certain advantages in comparison with the spray method described earlier.

Summary

Double-bleached manila-lined chipboard was treated by the board manufacturer with butylated hydroxyanisole prior to being made into 1-oz. individual cereal packages. The antioxidant was applied to the inside surface of the board in an amount equal to 0.05% of the board by weight. Three types of flaked dry cereal were packaged in this material, each package being overwrapped with 300 MST cellophane. Shelf-life tests were conducted at room temperature and at 100 deg. F. Control packages of untreated board were prepared and included in these tests. Panel evaluations of aroma, flavor and over-all preference were conducted after 18 weeks and 52 weeks with groups of non-expert judges using the hedonic rating system. Antioxidant treatment of the paperboard was found to result in a significant improvement in acceptability after storage in all three cereals.

Acknowledgements

The authors express their thanks to Dr. James J. Harrison of the Michigan Carton Co., Battle Creek, Mich., for [*Continued on page 160*]

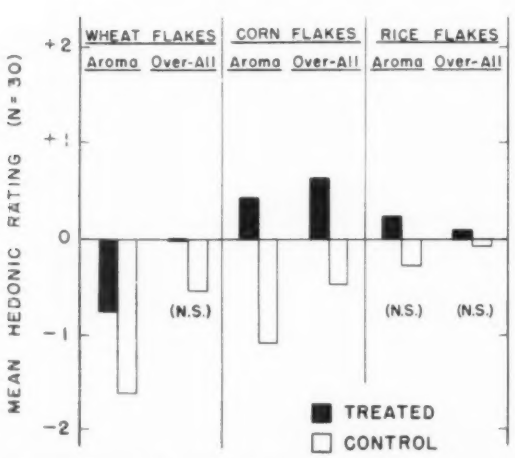


Figure 4. *Effect of antioxidant treatment of paperboard on the mean hedonic rating of three cereals after storage at 100 deg. F. for 18 weeks.*

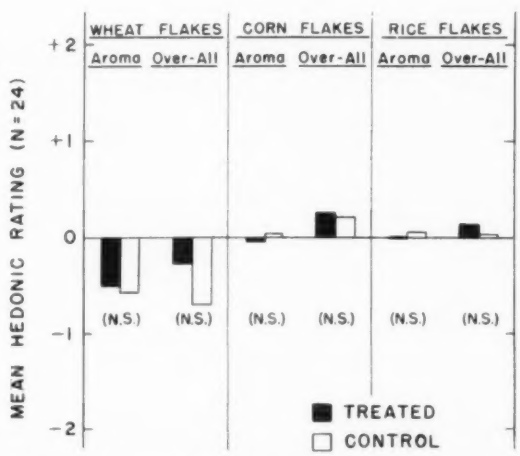


Figure 5. *Effect of antioxidant treatment of paperboard on the mean hedonic rating of three cereals after storage at 100 deg. F. for 52 weeks.*

Effect of wraps on frozen beef

Foil scores highest on palatability in medium-term storage, but polyethylene-coated paper is also effective; both prevent weight loss. Antioxidant additive is ineffective

*By J. D. Winter and Shirley R. Trantanella**

This study was designed (a) to compare the palatability of stored frozen ground beef packaged in several types of modified and unmodified polyethylene-coated papers and in aluminum locker foil; (b) to determine the effect on palatability of the addition of one antioxidant to a modified polyethylene coating; (c) to determine whether kraft paper with a ½-mil coating of modified or unmodified polyethylene is effective in preventing an appreciable loss of weights during storage.

Previous experiments at this Station (4, 5, 7)† have indicated that the palatability of frozen beef in storage may be significantly affected by the type of packaging material used. Similar results have been reported during recent years by various investigators such as Emerson et al. (1), McCoy, Cook and Hayner (2), Simpson and Chang (3) and others.

Limited studies at this Station (5, 6) have failed to indicate that the addition of an antioxidant to a packaging material will have any appreciable effect on the palatability of frozen and stored fish and ground pork.

Practical experience has indicated that a ½-mil coating of polyethylene on kraft paper is effective in preventing an appreciable loss of weight from frozen and stored meat when the product is properly wrapped, although few experimental data have been published.

*Both of the University of Minnesota, Institute of Agriculture, St. Paul, Minn. This is Paper No. 1033 of the Scientific Journal Series of the Minnesota Agricultural Experiment Station. This study was partially financed by a grant from St. Regis Paper Co.

†Numbers in parentheses identify References appended.

Figure 1. *Weighing and recording samples of ground beef before freezing and storage tests.*

Materials and methods

Ground beef. The beef used in this study came from one front quarter, grade U.S. Good. It was held for five days at approximately 32 deg. and 33 deg. F. (0 deg. and 0.6 deg. C.) and it was then ground twice through a fine plate.

Packaging materials. The following materials were used, all in sheet form:

Lot	*Material*
A	Bleached kraft with ½-mil coating of blend of polyethylene, wax and butyl rubber, containing a 5% antioxidant compound (a commercial formulation).
B	Bleached kraft with ½-mil coating of blend of polyethylene, wax and butyl rubber.
C	Bleached kraft with ½-mil coating of polyethylene, manufacturer's sample.
D	Bleached kraft with ½-mil coating of polyethylene, retail roll.
E, F	Aluminum locker foil 0.0015 in.

Packaging methods. The customary "freezer wrap" was used. The beef was placed in the center of a sheet measuring 12½ by 13 in.; the two longest sides of the paper were brought together over the

product and the edges were folded over twice to bring the paper tight against the top of the product. The ends were then folded over and secured with locker tape. The tape was not used with aluminum foil. The sheets of foil were slightly smaller, measuring 9 by 13 in.

Each package contained about 8 oz. of ground beef and was wrapped as tightly as possible. Evacuation of the air inside the package was not attempted, as the closure was not heat sealed. All packages were weighed (except the D series), dated and coded. The same packaging material was used for lots C and D, so it was considered unnecessary to weigh both lots.

Freezing. The packages were placed one layer deep on the refrigerated shelves of one of several upright-type home freezers operating at approximately minus 10 deg. F. (minus 23.3 deg C.). This was done at frequent intervals during packaging operations so that all samples were placed in a freezer within 10 to 15 min. after packaging.

Storage. To provide uniform storage conditions, wooden blocks measuring 1½ by 1¾ by 11 in. were placed at the ends of 11-by-17-in. aluminum trays. The frozen samples were then placed on the trays approximately 1 in. apart. The trays were stacked to a height of about 9 in., including an empty aluminum tray on the top and bottom of each stack. Each stack of the aluminum trays contained four replicas of the series.

The samples were stored at approximately 0 deg. F. (minus 17.8 deg. C.) for 5½, 7½ and 10 months in a room equipped with a recording thermometer and a blower-type unit cooler. Reference samples, packaged in aluminum foil, were stored in a similar room at approximately minus 15 deg. F. (minus 26.1 deg. C.).

Taste-panel evaluation. A panel of five qualified judges was used to determine palatability. The same judges were used throughout the experiment. A scoring range of one to 10 was used, with 10 the optimum. The judges were instructed that a score of seven or higher should indicate a rating of good or better and that scores of four or lower should indicate a commercially unacceptable rating. Each judge tasted both exterior and interior portions of each sample.

The wrapped samples were thawed at room temperature in front of a 12-in. fan. After unwrapping, the samples were broiled in a single-oven electric range under uniform cooking conditions. A numbered aluminum tag was inserted in each sample for identification purposes and the same code was marked on the plates used when the judging of the sample took place.

A reference sample, stored at minus 15 deg. F. (minus 26.1 deg. C.) was used at each judging period. The panel first agreed on an acceptable palatability score for the reference sample; then the remaining coded samples were individually scored. This technique provided each judge with a uniform basis of comparison from one judging period to another. The maximum number of samples judged at one time by the taste-panel members was six, in addition to the reference sample.

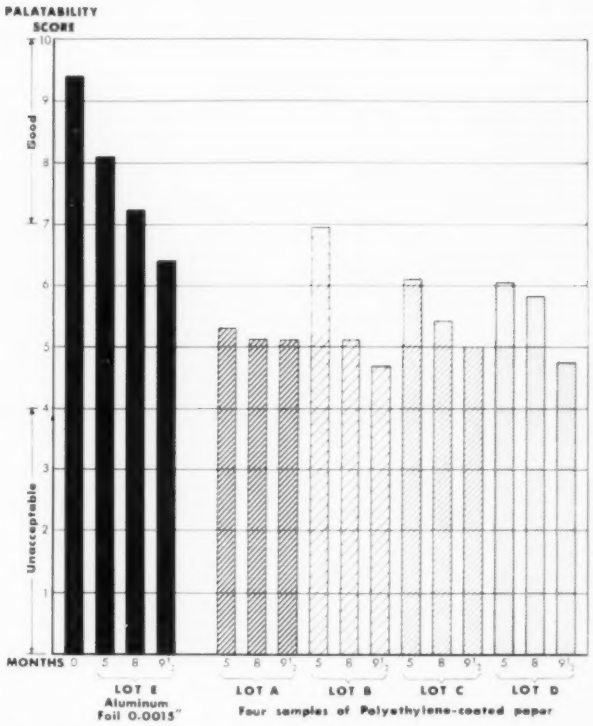


Figure 2. *Comparison of the palatability scores maintained by frozen ground beef stored at 0 deg. F. for 5 to 7 months in five different packaging materials.*

Weight records. All frozen samples (except Lot D) were weighed at the prevailing storage temperature on a laboratory scale held in the storage room for that purpose. The weight of the packaging material was included.

Analysis of data. Four replicate samples were used for each treatment and storage period. A statistical analysis was made of the taste-panel scores to determine the significance of differences in the ratings —except for the reference samples, which were not scored on an individual basis.

Results

A statistical analysis of the data, as shown in Table I, indicated no significant difference in the palatability scores among ground-beef samples stored at 0 deg. F. (minus 17.8 deg. C.) for 5½ months when packaged in any of the materials used. The scores indicated that the palatability remained

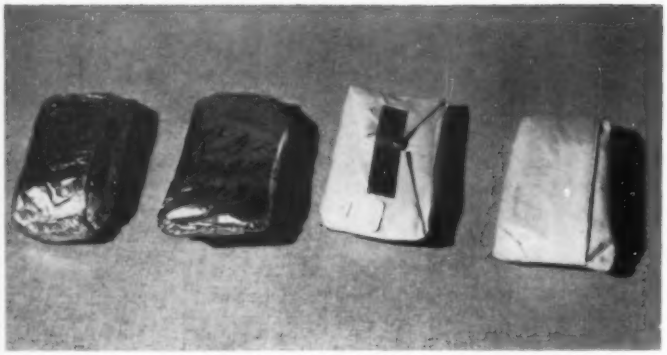


Figure 3. *Examples of foil wraps and polyethylene-coated paper wraps showing "freezer" method by which the packages were wrapped.*

good during this storage period, but that it was appreciably lower than that of the fresh samples at the start of the experiment.

After storage for 7½ months at 0 deg. F. (minus 17.8 deg. C.) the palatability of the samples wrapped in one modified and two unmodified polyethylene-coated papers (Lots A, C, D,) was significantly lower than that of the samples wrapped in aluminum locker foil (Lot E). The scores indicated that the samples wrapped in the aluminum foil were slightly below good in palatability, but were better in palatability than Lots A, C and D, the differences being statistically significant. There were no significant differences in palatability among the polyethylene-coated papers attributable to the added 5% antioxidant compound.

After storage for 7½ months at 0 deg. F. (minus 17.8 deg. C.) there was no appreciable difference between the palatability scores of samples wrapped in modified polyethylene-coated paper not treated with antioxidant (Lot B) and those wrapped in any of the other materials used. While the difference between Lots B and D was significant at the 5% level, it is doubtful whether the small difference was large enough to be of any practical importance. Differences between Lot B and the remaining lots were not statistically significant.

After storage for 10 months at 0 deg. F. (minus 17.8 deg. C.) the scores indicated that the palatability of all samples was well below that of good, although still above the "not-acceptable" range. There were no significant differences in the palatability scores.

The palatability scores for the samples packaged in aluminum foil and stored at minus 15 deg. F. (minus 26.1 deg. C.) for 5½, 7½ and 10 months were much higher than those for any of the samples stored at 0 deg. F. (minus 17.8 deg. C.) These scores

Table I: Palatability scores and weight change of frozen ground beef stored in various packaging materials

Lot	*Packaging material and treatment, description**	*Storage temperature, deg. F.*	*Storage period, months*	*Palatability scores†, average*	*Average weight gain or loss, %***
A	Bleached kraft with ½-mil coating of blend of polyethylene, wax and butyl rubber containing antioxidant	0° F.	5½	7.30	0.12 gain
			7½	5.70	0.22 gain
			10	5.90	0.07 gain
B	Bleached kraft with ½-mil coating of blend of polyethylene, wax and butyl rubber	0° F.	5½	7.45	0.07 gain
			7½	6.05	0.03 loss
			10	6.05	0.11 gain
C	Bleached kraft with ½-mil coating of polyethylene, manufacturer's sample	0° F	5½	6.90	0.18 gain
			7½	5.90	0.22 gain
			10	5.75	0.23 gain
D	Bleached kraft with ½-mil coating of polyethylene, retail roll	0° F.	5½	7.25	no record
			7½	5.55	no record
			10	5.95	no record
E	Aluminum locker foil 0.0015"	0° F.	5½	7.35	0.005 gain
			7½	6.45	0.01 loss
			10	6.25	0.08 gain
F	Reference samples, in aluminum locker foil 0.0015"	−15° F.	5½	9.00	—
			7½	7.50	0.04 loss
			10	7.25	0.08 gain

L.S.D., palatability scores	5% level	1% level
5½ months' storage	0.473	0.627
7½ months' storage	0.460	0.610
10 months' storage	0.374	0.496

*The customary "freezer wrap" was used for all samples. There was no heat sealing or evacuation of the air inside the package.
†The score for the fresh sample at the start of the experiment was 9.4.
**Expressed on basis of original package weight.

indicated little, if any, loss of palatability during the first 5½ months of storage as shown by the score for the fresh sample.

No appreciable changes in weight occurred in any of the lots during storage periods up to 10 months. In most instances, a slight gain in weight was recorded, as shown in Table I, apparently due to unavoidable moisture condensation on the package.

Discussion

All packaging materials used in this study are believed to have low rates of permeability to water vapor. This is substantiated by the fact that in no case did any appreciable change in weight occur during storage.

The data obtained in [*Continued on page 163*]

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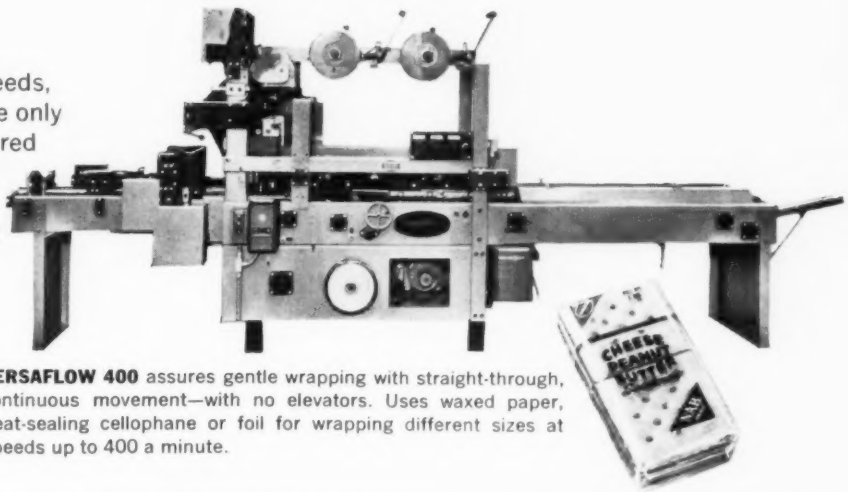

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Damage due to freezing

Q: *Much of our line of cosmetics products is packaged in glass of various sizes and types. Each year we have serious loss from freezing damage in shipment to the northern part of the country. For some products, the damage is due to the separation of the product by freezing and for other products the containers are cracked or broken. What can we do to eliminate or reduce this cold-weather damage in the shipping of corrugated cases of our products?*

A: The problem of cold damage to products and packages during shipping in winter months, is a serious problem for many industries. Conversely, some products and packages suffer heat damage in summer months. Unfortunately, there is little or nothing that can be done to the package or shipping case to solve this freezing or over-heating problem.

Only a shipping case containing a thermostatically controlled source of heat could protect your products in a truck exposed to, say, minus 10 deg. F. for one day. Double-walled corrugated, insulation pads or foil barriers will protect them for varying lengths of time against brief exposure to abnormal temperatures. But since these constructions can only retard the gain or loss of the total heat in the case, it is only a question of time before the contents come to equilibrium with the outside air temperature.

The answer to your problem is to mark your shipping cases clearly—even dramatically—with the proper and limiting conditions of storage and to try to educate your shippers and agents on the necessity for avoiding freezing exposure.

Luncheon-meat protection

Q: *Some of our luncheon meats are packaged in gas-packed flexible pouches. We have tried several different pouch materials and we also carefully watch and control the gas-packing machine. However, we find that we continue to get considerable returned goods that are spoiled or badly discolored. Is there anything we can do that will be effective in eliminating these losses?*

A: Luncheon meats are a complex group of food products that vary greatly in both their composition and their stability.

Flexible gas- or vacuum-packed containers of certain materials and heat-seal constructions have a proved commercial record of lengthening the shelf life of luncheon meats. They will not give indefinitely long shelf life as would, for example, a heat-sterilized product in a metal can or glass container.

The flexible package has transparency, low cost and is an effective way to merchandise slices or small portions of luncheon meats. However, for efficient and successful use of the flexible package, each product must be made as stable as possible and the conditions of storage and the total package life must be specified and, preferably, controlled. Some products have a much shorter shelf life than others and each may deteriorate or become unsalable in a different way. Some luncheon meats show severe color changes from light exposure, others may show fat bloom after storage above a critical temperature, while others slowly deteriorate with no clearly visible indication of its state of unacceptability.

The rules are these. First, make a product which is as uniform and stable as possible. Next, package it promptly, using recommended materials and packing techniques. Then, be sure the packaged goods are moving promptly through commercial channels and under good conditions of temperature, etc. Code date and otherwise police stocks to maintain quality at points of sale.

Under these conditions your returns should be minimized and the flexible gas- or vacuum-packed containers will deliver a good product to the user.

Scuff-resistant labels

Q: *Our product is packaged in glass bottles with applied paper labels. We ship six of these bottles to a case, without the use of dividers, and are experiencing considerable label damage due to scuffing. How can we prevent our paper labels from scuffing? Do you think that the use of laminated-foil labels would solve our problem? Any suggestions that you might give us on this matter will be very much appreciated.*

A: The use of a laminated-foil label would not necessarily be the answer to your problem and it would, of course, cost more than your present paper label.

If you do not wish to use case dividers, then you should apply a scuff-resistant coating on the labels. Great strides have been made recently in the development of varnish and lacquer coatings for labels. These coatings not only provide a scratch-resistant surface, but add greatly to the appearance of the label.

Greater care is usually necessary in the storage of coated labels to prevent curling and minor adjustments on labeling equipment are generally required to handle these labels. On the whole, however, coated labels—if properly made—handle well on automatic equipment.

Scuff-resistant coatings can also be applied to foil labels, if you desire the added merchandising impact of this material. However, if these bottles are intended for re-use, you may find difficulty in stripping the foil labels from the bottles. To counter this objection and still get the sparkle of the foil, you might consider some of the metalized papers now on the market. They are easily soaked from the bottles and, reportedly, are easier to apply on labeling machines.

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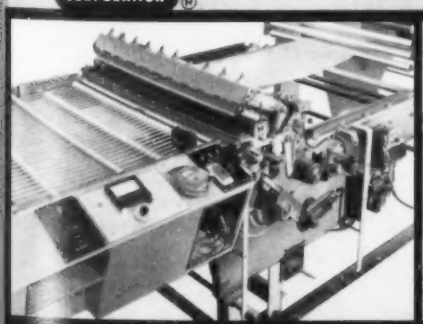
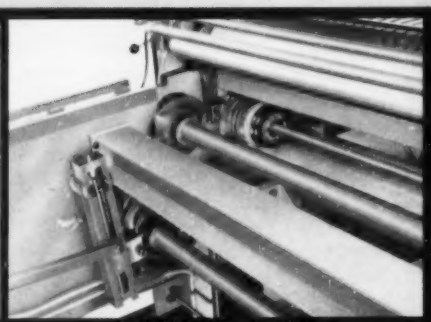


Feather-Smooth Operation



Rock-Ribbed Construction

For left: View of control side of machine with covers removed. Shows sealing jaw in raised position, and water cooler down.

Left: Internal cam adjustments and brake unit. Note variable cam for dwell time adjustment, adjustable arm and cam for film compensator, electric clutch and brake.

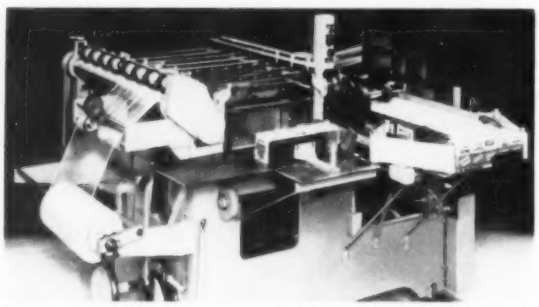
Equipment & Materials

[*Continued from page 52*]

are formed from roll-stock polyethylene. Heat-sealed on three sides, they are cut on the fourth side to form a filling nozzle and dispensing nipple without a break in the roll. In addition to packaging-material cost saving in comparison with metal cans, the film bags pay for themselves through savings in the costs of sterilization, storage, inspection and retinning—since these operations are eliminated—the company says. Other advantages cited for the film-bag-and-carton combination are savings in storage space and shipping costs. *Container Corp. of America, 38 S. Dearborn St., Chicago 3.*

Versatile new bundling machine

Battle Creek's Model 850 Texpaker is designed for automatic bundling of 4, 6, 8 or 12 smaller packages without the need for bottom supports. It operates at a rated speed of up to 18



bundles per minute, accommodating such products as soft goods, stacked paper, baked goods, foods and small automotive parts. Among the bundling materials that can be used on the machine are polyethylene film, glue-sealing kraft, polyethylene-coated kraft, cellophane (including polymer-coated cellophane) and foil. Package sizes can vary from 5 to 12 in. long, 4 to 10 in. wide and 1 to 8 in. high. As each bundle unit is fed into the machine, a complete wrapping cycle is actuated. This consists of unlocking and cutting off the sheet of bundling material, forming the folds, heat sealing or gluing the folds and discharging the finished bundle. *Battle Creek Packaging Machines, Inc., Battle Creek, Mich.*

New machine and leakproof tray

A new leakproof tray with heat-sealed corners and a machine for producing it are offered by John T. Raisin Corp. Both tray and machine are called "Pantray." The company points out that heat sealing the corners of the tray produces a leakproof, strong package with perfectly smooth sidewalls. The interior of the tray is coated. The coatings include polyethylene or vinyl for greaseproofness and aluminum foil to permit oven baking in the tray. Among the suggested uses of the tray are in the packaging of bakery products, moist foods, frozen foods, confections, hardware and shoes. *John T. Raisin Corp., 1575 Bayshore Blvd., San Francisco 24.*

Table-top marker cuts labeling costs

Savings of up to 70% on short-run label costs are claimed by W. H. Brady Co. for its new Printmatic automatic label-printer and die cutter. The unit simultaneously prints, die-cuts and dispenses pressure-sensitive labels from liner-mounted roll tape. The tape reportedly can be processed at the rate of 250 running inches per minute. Among other features cited for the compact (11 by 8½ by 9 in.) unit: It uses smudgeproof, instant-drying ink; ink color or dies can be changed in less than one minute; rubber copy plate can be changed in 30 seconds; it is easy to operate and to maintain. *W. H. Brady Co., 727 W. Glendale Ave., Milwaukee 9.*

Automatic production of strip packages

Mercury Heat Sealing has added another improvement to its Verti-Pak automatic bag-making, filling and sealing machine. Under the new development, called "Strip-Pak," the machine reportedly can produce a continuous stream of completed bags joined together in any number. The bags can then be removed individually from the strip. The unit also provides automatic skip-and-fill performance if such a type of packaging is desired, the manufacturer reports. *Mercury Heat Sealing Equipment Co., 2601-21 N. Howard St., Philadelphia 33.*

Additions to printing-ink line

New additions to its line of inks for printing on packaging materials are announced by Sinclair & Valentine. The supplier's Type-Hi water-reducible ink is designed for application to multiwall bags, corrugated cartons and other materials. Among its cited advantages are: good press stability, quick setting, fast drying, rub resistance and low odor. Accelogloss is the name given to a new series of offset inks that are said to set quickly and dry rapidly to a high gloss. A line of letterpress inks, called Prime, also has been added. Stocked in 25 colors, they are claimed to meet the requirements of small and medium-sized shops. Finally, a new addition to the supplier's Meteor line of moisture-set inks is reported to have excellent alkali resistance and rub resistance. *Sinclair & Valentine Co., 611 W. 129 St., New York 27.*

Flexibility in thermoforming

Blister packages in a wide variety of sizes and shapes can be formed on Sundstrand's new Sundstrand-Packmaster Model 58. Packages measuring 4 by 4 in. can be produced at 60 per minute, with production of smaller packages being correspondingly higher, the company says. Thermoformed bubbles become their own conveyors as they move through the machine. The flange produced in forming supports the package and product as both ride along adjustable guide rails on the loading table during the packaging operation. To seal the package, clear or opaque thermoplastic sheets or heat-seal paper can be used, depending on the product. *Sundstrand Machine Tool Co., Sundstrand-American Broach Div., Rockford, Ill.*

Lever-lift cover for aerosol cans

A line of polyethylene dust covers for aerosol valves now is being marketed under the "EZ Lift" trade name by Super Whip

Valve. According to the supplier, the molded fitment eliminates the possibility of damage to valve or cover when the aerosol container is accidentally dropped, prevents gas loss and valve blow-off caused by prying under the valve-mounting cap and minimizes the possibility of accidental discharge of gas and product caused by hitting the nozzle during removal of the cap. The protective dust cover features a small, lever-action tab attachment that looks like a typewriter key. Downward finger pressure on the surface of this tab lifts off the cover safely and easily. The cover is available in a variety of stock-design and private-style molds. *Super Whip Valve Co., 4101 N. Rockwell St., Chicago 18.*

Compression tester for packaging materials

A compression-testing machine designed specifically for testing shipping containers and other packages and packaging materials is available from L.A.B. Corp. It is reported to meet all American Society of Testing Materials standards. The unit consists of a fixed platform on which packages are placed,

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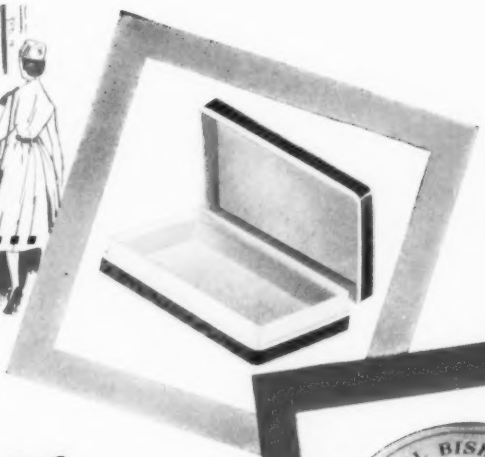

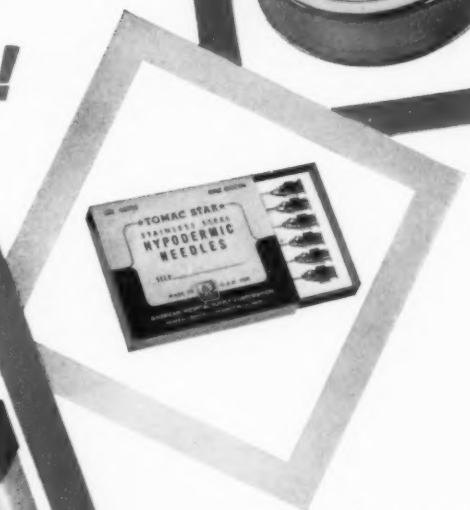

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an upper platen connected to a crossbeam which is raised or lowered by two loading screws housed in vertical channels, and a direct-reading dynamometer. The base plate, which will accept packages up to 40 in. square, stands 12½ in. from the floor, for easy handling of containers. The machine can be furnished with box-height openings of 48, 60 or 72 in. Dynamometers are available in up to 10,000-lb. readings. *L.A.B. Corp., Skaneateles, N.Y.*

New case opener, can sorter

Atkron reports the availability of two new packaging-line machines—an automatic four-flap case opener and an automatic can uncaser-sorter. Both are being marketed under the firm's "Atkron Dumore" trade name. The case opener, Model CFO-1, is designed to open all four flaps of cases used for packaging bottles, jars and cans. It can be adjusted to handle case sizes up to 14 in. wide by 21 in. long by 12½ in. deep. Its case-opening speed is more than 30 containers per minute, says the supplier. The can uncaser-sorter, Model CUS 12, is designed for high-speed automatic uncasing and unscrambling of empty cans of up to 1-qt. size. According to the company, the unit is capable of speeds ranging from 600 32-oz. cans to 1,200 six-oz. cans per minute. The machine features a magnetic pulley which turns cans open-end-up, ready for the filling cycle. *Atkron, Inc., Cuyahoga Falls, O.*

Three-operation counting for stacked boxes

General Corrugated's Shingled-Pile Counter is a new machine that performs three separate operations and reportedly enables box makers to speed up production. As one operation, it can be used to run narrow, die-cut boxes that will not stand in a stack until tied. When the proper count is reached for the

group of boxes, the conveyor belt then runs a greater distance to provide separation between groups. In a second operation (shown), box blanks are stacked until the correct count is reached, then a space on the conveyor is provided before the next stacking action begins. The third operation provides for overlapping-pile stacking of large corrugated-container blanks. Change-over from one type of stacking operation to another is controlled by switches. *General Corrugated Machinery Co., Inc., Palisades Park, N.J.*

Rust-inhibitive packaging disks

Designed for use in the packaging of steel products, rust-inhibitive paperboard disks (treated with a volatile corrosion inhibitor) are available from Chippewa Paper Products. The disks are placed in the package with the product and need not touch the metal parts to be effective, since their vapor migrates effectively to 12 inches. They afford in-package product protection for several years, the supplier says. *Chippewa Paper Products Co., 2425 S. Rockwell St., Chicago 8.*

Device tests paper pliability

American Instrument's Aminco pliability tester is a portable, self-contained device that simulates the action of wrapping packaging material around an object and measuring its resistance to the operation. According to the company, the new unit offers accurate quantitative measurement of such materials as paper, greaseproof, waterproof and water-vapor-proof barrier materials and flexible cushioning wraps. *American Instrument Co., Inc., Silver Spring, Md.*

Self-contained produce carton

A self-contained produce carton that requires no film, labels, tape or heat-sealing equipment has been developed by Mead-Atlanta. Dubbed "Arm-Lock," the new package is a kraft board tray with two die-cut, scalloped parallel bands that serve to hold the produce snugly in position (as shown in the accompanying photo) and help protect it from damage in handling. The "arms," which contain unprinted areas for marking price and other data, also can be used as pick-up or carry handles. The supplier claims that the use of its new carton enables one worker to pack, lock and price mark in less time than is required for other produce packages. And because the carton requires no other accessory packaging material, costs can be reduced, the company points out. Among the products suggested for packaging in the new protective carton are peaches, oranges, apples, tomatoes, bananas, corn, beans and other fruits and vegetables. *Mead-Atlanta Paper Co., 950 W. Marietta St., N.W., Atlanta 2.*

Heavy-duty polyethylene bags

Polycraft Bag. Co. is a new company that will manufacture heavy-duty polyethylene bags exclusively. Designed for packaging industrial and agricultural products, the bags will be produced in 25- and 50-lb. sizes, printed in up to four colors. The bags (which also may be produced in intermediate and larger sizes) will have a wall thickness of 10 mils, for greater resistance to puncture and tear damage. Pres. of the new company is James F. Wyllie. V.p. is Charles J. Foret. *Polycraft Bag Co., P.O. Box 2041, South Bend, Ind.*

Hygienically treated plastic sheet

Extruded plastic sheet made by Campco now is being offered with "Sanitized" hygienic treatment. The sheet is treated with a colorless, odorless chemical additive that is claimed to protect it against the growth and action of bacteria, fungi, mildew and other micro-organisms. Among the suggested fields of application for the chemically treated sheet is in the manufacture of food containers. *Campco, Div. Chicago Molded Products Corp., 2737 N. Normandy Ave., Chicago 35.*

Self-inking conveyor-line marker

A friction-operated, self-inking marking unit that can be attached to the conveyor line or case sealer is offered by Pryor. The company's "Rocket" is an automatic attachment for imprinting such data as codes, dates and trademarks on cartons, bags, rolls, cans, drums and other containers. Available in two models (for printing heights of 1 or 2 in.), the units can be used singly or in multiples to mark both top and sides—or two sides—simultaneously. *Pryor Marking Products, 434 So. Wabash Ave., Chicago 5.*

Liquid filler for small operations

To meet the needs of small-scale packagers of liquids, Packer Machinery has added a hand filling unit to its line. Available in two- or three-spout models, the supplier's PH-1 operates by vacuum or gravity flow. Cited features of the new filler are stainless-steel liquid-contact parts, clear plastic tubing and interchangeable nozzles. *Packer Machinery Corp., 109 14th St., Brooklyn 15.*

Napkin wrapper cuts costs, ups production

Stepped-up production, lower unit costs and a more appealing package are the benefits cited by Battle Creek for its new Model 47-S overwrapping machine. The unit packages napkins and similar bundled items at a reported rate of up to 70 packages per minute, without bottom boards, boxes, trays or other rigid supports. It can accommodate package units ranging from 4 to 12 in. long, 3¾ to 8 in. wide and ½ to 4½ in. high. Change-over from one size to another is said to take less than

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Equipment & Materials *(continued)*

15 minutes. In machine operation, stacked napkins or other paper products are lifted by a double elevator from an intake belt to the wrapping area, supported in their upward travel by a plate. At the peak of the motion, one section of the elevator descends while the other remains to support the soft center of the paper product so folds can be made beneath the package. This section then descends also, and the package is conveyed to the folding and heat-sealing stations. *Battle Creek Packaging Machines, Inc., Battle Creek, Mich.*

Safety seal keeps cup packages closed

A safety seal for clear-plastic lids used on cup packages has been developed by Dixie Cup. The seal is a red polystyrene ring that fits securely inside the lid skirt. Directions printed on the closure instruct the customer to remove the ring before opening the package. This is done by pulling on a small tab on the inside of the ring, thus breaking the brittle plastic. The transparent, oriented-polystyrene cover then can be removed easily, and replaced as needed. Advantages cited for the safety seal are: (1) it holds the lid securely on the package, even in rough handling; (2) it is leakproof; (3) it insures longer product shelf life, and (4) it prevents the package from being opened in the store and damaged by curious or unscrupulous shoppers. *American Can Co., Dixie Cup Div., Easton, Pa.*

Device tests performance of adhesives

The Thwing-Albert T-A-C Tester is a machine that predicts the production performance of water- and solvent-based adhesives (such as gummed tape) by subjecting them to simulated production-use conditions in the laboratory. The unit works on the principle of bonding two surfaces—paper, paperboard, plastics, foil, etc.—by an adhesive and measuring the strength of the bond by its resistance to shear or peel forces either on a curved or flat surface. *Thwing-Albert Instrument Co., Penn St. & Pulaski Ave., Philadelphia 44.*

Cellophane-tape marker and dispenser

Kiwi Coders offers a new portable dispensing and marking device utilizing pressure-sensitive cellophane tape. The unit prints a date code or short promotional message on the adhesive side of the transparent tape, which is fed from a roller. Because copy is printed on the adhesive side, it cannot be rubbed off, the manufacturer points out. *Kiwi Coders Corp., 4027 N. Kedzie Ave., Chicago 18.*

'Glowing' labels offer eye appeal

Greater package visibility, for product identification and for special offers, can be achieved at the point of sale by using its new series of pressure-sensitive radiant-stock labels, says Dennison. The brilliant label colors are designed to attract and hold shoppers' eyes. After special promotions, the labels can be stripped off. *Dennison Mfg. Co., Framingham, Mass.*

Transistorized photo-electric control

A transistorized photo-electric control attachment that is claimed to offer fast operation and low upkeep is being marketed by Autotron. To exclude extraneous light, the device's sensing element is mounted behind a small opening in a shield located 2 in. behind the lens. *Autotron, Inc., Danville, Ill.*

Rigid vinyl sheeting

Three new rigid vinyl sheeting materials, claimed to offer higher impact strength, greater light stability and greater resistance to heat distortion than materials hitherto available, have been announced by Union Carbide Plastics. The company reports that the materials can be machined, drilled, trimmed and vacuum formed in the usual manner, and possess the properties of dimensional stability, chemical inertness, non-flammability and freedom from odor. The first of these materials, designated VCAB-3603, has a flexural strength of 10,500 and an Izod impact resistance of 15. The second, VCAB-3604, is reported to couple superior light stability and high impact strength. It is available in transparent or opaque sheets. The third, VCAB-3606, is claimed to have superior resistance to heat distortion. It, too, is offered in transparent or opaque sheets. *Union Carbide Plastics Co., Div. Union Carbide Corp., 30 E. 42 St., New York 17.*

Improved protective shipping bag

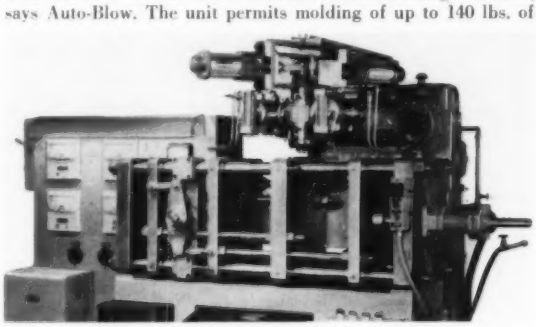
Sherman Paper Products has introduced an improved form of its Corro-Bag protective shipping bag. Its creped-end closure has been replaced by a double-folded, glued-end closure that reportedly offers greater strength and easier handling properties. A gusseted score line near the bag's bottom enables it to conform more closely to the object being packaged, says the company. Additional advantages cited include increased longitudinal stiffness and easier insertion of products. *Sherman Paper Products Corp., Newton, Mass.*

Controlled feeding of bulk parts

Syntron reports that its line of electromagnetic vibrating feeders now has been engineered to accomplish efficient, rate-controlled feeding of bulk parts as well as bulk materials. Dependable movement of the parts is achieved by the electromagnet drive which produces 3,600 smooth vibrations per minute, the supplier says. The vibrations are controlled by a rheostat in the feeders' separate controller unit, which can be adapted for automatic operation. The units will feed parts made of wood, metal, plastic, rubber and other materials. *Syntron Co., Homer City, Pa.*

Horizontal-motion blow molder

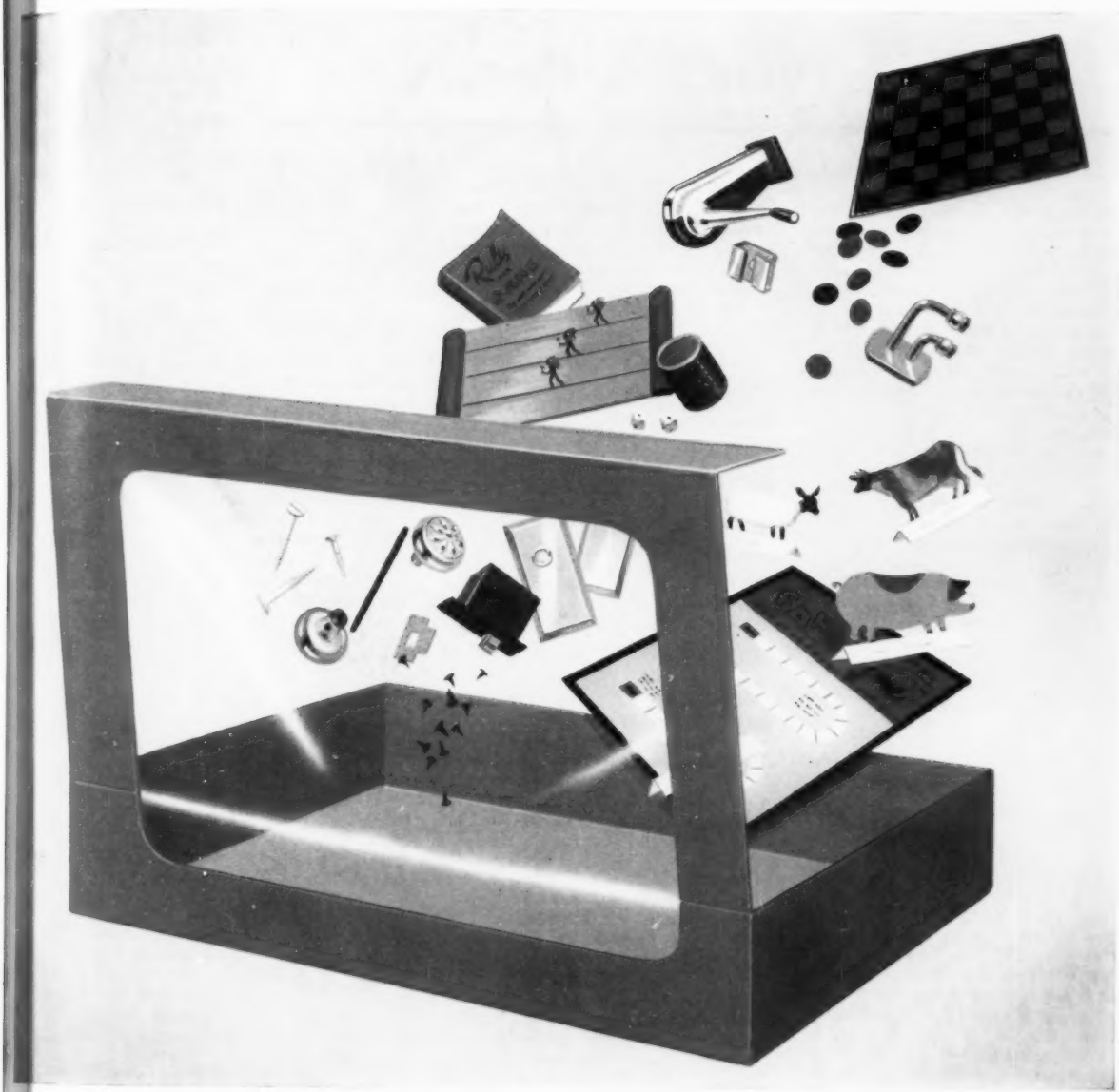
Exceptionally high production of containers and other hollow items up to 6 in. in diameter and 32 in. in length is possible with its new Model 150-7 automatic blow-molding machine, says Auto-Blow. The unit permits molding of up to 140 lbs. of



plastic material per hour from a continuously running extruder. The machine has three large mold platens which move back and forth in a horizontal plane. Molds are placed on both faces of the center platen and on the inner faces of the two end platens. As the molds on the right side close to mold and cool, a mechanical linkage automatically opens the molds on the left side for parison (material) extrusion. When parisons reach correct length, the molds on the left side close to mold and cool, automatically opening the molds on the right side. The finished products in the right side then are ejected and parison extrusion begins. This shuttle action repeats automatically from left to right at a reported speed of 2,500 cycles per hour. The machine is available with or without extruder. *Auto-Blow Corp., sub. National Tool Co., Bridgeport, Conn.*

Electric gummed-tape dispenser

Derby Sealers' new electric gummed-tape dispenser is designed to deliver up to four predetermined lengths (to 60 in.) using a remote control. It also is equipped with a random-length control. The new unit, one of the supplier's "300" series, can be operated by foot treadle or remote switch. *Derby Sealers, Inc., Derby, Conn.*



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Windows of "Mylar" have excellent tear and puncture resistance, exceptional impact strength, long life. "Mylar" is unaffected by grease and oils. And its superior dimensional stability prevents box warping. In addition, "Mylar" gives your window boxes the advantages of dazzling, sales-winning transparency.

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Plants & People

In a merger of two major filling-machine manufacturers, the **Arthur Colton Co.**, Detroit, has purchased **Hope Machine Co.**, Philadelphia. According to **K. B. Hollidge**, exec. v.p. of Colton, the acquisition now enables the company to offer a complete line of filling machines for use in the pharmaceutical, food products, paint, chemical, building products and dairy products industries. The Hope line of machines, to be merchandised under the name "Colton-Hope," will be made and serviced by Arthur Colton Co.

Parlin Lillard has been appointed to the newly created position of v.p. for packaging and special projects by **General Foods Corp.**, White Plains, N. Y. In this position, he will direct the company's packaging-development program and undertake special assignments in connection with the development of new grocery products or product lines. Mr. Lillard is succeeded as gen. mgr. of GF.'s **Perkins Div.** by **E. F. Fitzmaurice.**

Lillard

Continental Can Co., New York, reports that it has changed the organizational structure of its Boxboard & Folding Carton Div. to increase its sales and production effectiveness. Three new positions have been created on the vice president's staff: **William W. Scheide** becomes mgr. of mfg. and engineering, **Wray H. Callaghan** becomes gen. sales mgr. and **J. C. Hendricks** becomes gen. sales mgr.-bleached board and carton development.

Four new divisional sales regions and gen. mgrs. for each also have been set up. They are: Northeast, **George J. Tooker**; Eastern, **Otto M. Miller**; Central, **Charles A. Colbert**, and Pacific, **Robert Bullock**. Other appointments brought about by the reorganization are: **Thomas E. Cathcart**, to folding-carton sales mgr., and **Ernest Kerstein**, to boxboard sales mgr.

Merger plans have been announced by **Brockway Glass Co.**, Brockway, Pa., and **Tygart Valley Glass Co.**, Washington, Pa. Under terms of the proposed merger, Tygart would become a wholly owned sub. of Brockway and would retain its present personnel.

The Crossett Co., Crossett, Ark., has purchased **Triangle Paper Bag Mfg. Co.**, Covington, Ky. The latter company will be operated as **Triangle Bag Co.**, a sub. of Crossett.

John M. McClure becomes Eastern district mgr. of kraft paper sales for **West Virginia Pulp & Paper Co.**, New York. He succeeds **Louis R. Lawson, Jr.**, who has assumed the duties of regional mgr. of the company's **Hinde & Dauch Div.** in Richmond, Va. From his headquarters in New York, Mr. McClure will supervise sales of the company's Kraftsman line, including the Clupak brand of stretchable paper.

E. A. Siebert has succeeded **Charles L. Barr** as pres. of **F. B. Redington Co.**, Bellwood, Ill. Mr. Barr is now chairman of the board. **Wade Meloan** has joined the company as v.p. He was formerly v.p. of **Pettibone Mulliken Corp.** of Chicago. Redington makes automatic cartoning machinery, special packaging machinery and counting machines.

Siebert *Meloan*

Arthur W. Tower has been appointed gen. sales mgr. of the Fibre Can Div. of **Sefton Fibre Can Co.**, St. Louis. He was formerly asst. sales mgr. for Sefton, a div. of **Container Corp. of America.**

C. Berger Graves has been appointed v.p. in charge of the Div. **Robert J. Brockman**, v.p., has been appointed to supervise the Plastics Div.

Thomas J. Casey has been named sales mgr. for aerosol equipment by **Mojonnier Associates, div. Kartridg-Pak Machine Co.**, Franklin Park, Ill. **Roy Ferry** becomes Eastern Div. sales mgr., with headquarters in New York.

R. G. Madill has been named Eastern district sales mgr. for the commercial-container div. of **Ball Bros. Co.**, Muncie, Ind. He will headquarter at the company's New York office. **J. W. Lofgren** succeeds Mr. Madill as mgr. of the Detroit sales office.

Alexander

American Can Co., New York, has appointed **Claude L. Alexander** as v.p. and gen. mgr. of its **Bradley-Sun Div.**, which produces plastic and collapsible metal tubes and other items. Mr. Alexander had been v.p. in charge of the Div.'s sales since the consolidation last December of the two former subsidiaries, **Bradley Container Corp.** and **Sun Tube Corp.** Previously, he had been gen. sales mgr. and later v.p. in charge of sales for Sun Tube Corp.

Union-Bag-Camp Paper Corp., New York, has acquired a controlling interest in **Highland Container Co.**, Jamestown, N. C. The company will be operated as a subsidiary, retaining its name and personnel.

Paul L. Hershfield has joined **Thatcher Glass Mfg. Co.**, New York, as exec. v.p. He comes to Thatcher from the **Mississippi Glass Co.**, where he was pres. and chief exec. officer.

Mead Containers, Inc., sub. The Mead Corp., Cincinnati, has acquired the Display Div. of **Gibraltar Corrugated Paper Co.**, Jersey City. Personnel, policies, production practices, administration and sales operations will remain unchanged in the newly acquired facility, which will operate as **Gibraltar Display Div.**

Crown Cork & Seal Co., Philadelphia, has created a new Central Sales Region, and has named **Harvey C. Tull** as its mgr. **Mark T. Concannon** succeeds Mr. Tull as Philadelphia district sales mgr. His former duties as mgr. of closure sales for the Middle Atlantic Region have been taken over by **George P. O'Brien**, who will continue to supervise can sales for the region. **Seth R. Schneible** has been appointed mgr. of aerosol product sales.

Faustin J. Solon, since 1934 a v.p. of **Owens-Illinois Glass Co**, Toledo, has retired. Mr. Solon joined the old Owens Bottle Co. in Toledo in 1910, moving into its sales dept. after World War I. When Owens merged with Illinois Glass Co. in 1929 to form Owens-Illinois, he was named mgr. of pharmaceutical, proprietary and prescription sales. Two years later, Mr. Solon was named gen. sales mgr. of the Glass Container Div., a position he held until 1941.

Solon

Brett Lithographing Co., Long Island City, N. Y., has announced the resignation of **Charles F. Roberts** as secy. and director. Mr. Roberts is v.p. of the **Lithographic Technical Foundation** and has served on many committees, both national and local. His future plans have not been announced.

Edward T. Boughton has been appointed sales mgr. of **Eastern Corrugated Container Corp.**, Clifton, N. J.

John G. Scattergood becomes sales mgr. of the marketing div. of **Reed Research Corp.**, aerosol consultant, Shelton, Conn. He was formerly associated with **Powr-Pak, Inc.**

A new research, product-development and standards laboratory, coordinating the design, engineering and testing of corrugated and solid-fibre boxes, has been established by the Paper Products Div. of **Owens-Illinois Glass Co.**, Toledo. Tech. director of the new facility is **Dr. John G. Turk**, for the past

How to sell without a salesman

Customers handle
their own cases when your
brand's in colorful, lightweight
H & D corrugated boxes.
They're easy to carry—attractively
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Cell and light source can be adapted to any application . . . and are permanently assembled so vibration can't jar them out of focus. Pulses as short as .0002 seconds will actuate this device, which means that a ¼" object or space moving at 6,000 feet per minute will be counted. "Count-Pak" is transistorized throughout (no tubes) and utilizes printed circuits . . . double assurance of instant action and long trouble-free life. Rugged, compact case: 8¼" wide; 5¼" high; 6¼" deep. Panel includes pilot light, reset button, and power switch. *And prices are unexpectedly low.* Write:

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Plants & People *(cont'd)*

10 years director of the packaging research laboratory of **Glass Container Mfrs. Institute.** Purpose of the new laboratory, says O-I, is to provide customers with improved design service.

U. S. Industrial Chemicals Co., New York, is planning an expansion of its recently completed polyethylene plant at Houston, Tex. Now geared to produce 75,000,000 lbs. of Petrothene polyethylene resins yearly, the plant after expansion will have double that capacity, the company reports.

C. G. Harrel has resigned as director of **Pillsbury Mills'** New Product Ideas Dept. to become an independent consultant to the food industry. His office is at 3424 E. Lake St., Minneapolis 6.

Robert B. Mesrobian has been appointed gen. mgr. of paper and plastic container research and development for **Continental Can Co.,** New York. Formerly associate director of high polymer chemistry at Concan's Central Research & Engineering Div., Dr. Mesrobian will now supervise company efforts to devise improved paper and plastic packages and packaging machinery. Facilities for this project are to be housed in a new laboratory to be constructed in Chicago.

Mesrobian

Kaiser Aluminum & Chemical Corp. is moving its general sales offices from Chicago to Oakland, Calif., within the next few months.

Alan J. Green has been named national sales mgr. of **Webster Industries, Inc.,** Salem, Mass. The company extrudes, prints and converts polyethylene film.

Powlenko

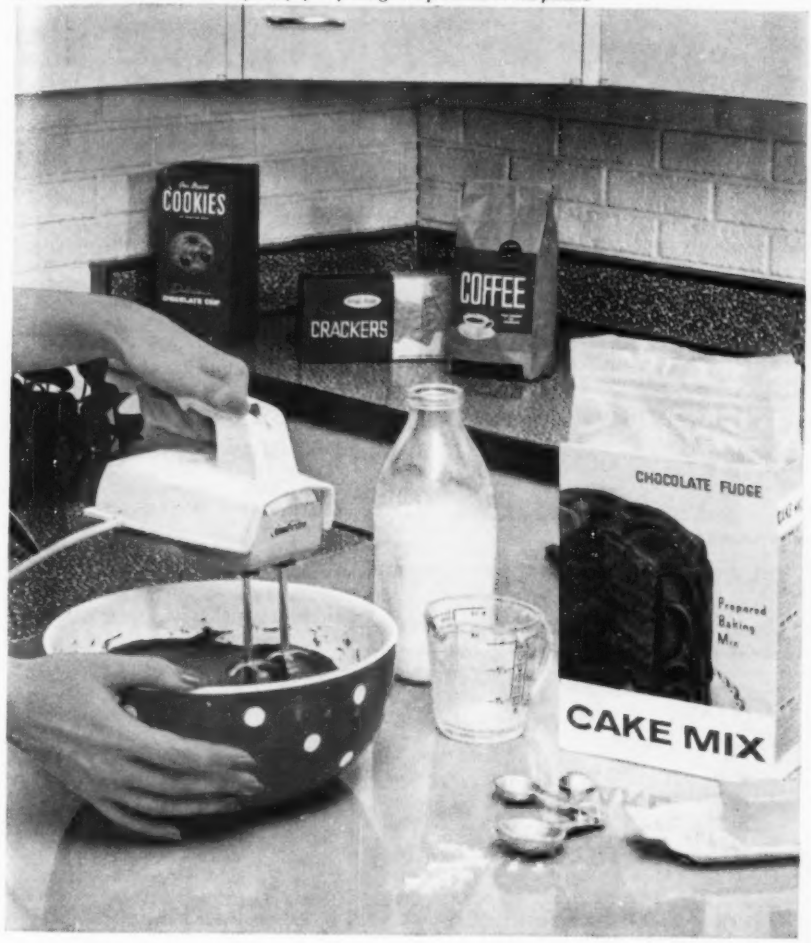
Edward J. Powlenko has been named director of packaging engineering service for **Mead Containers, Inc., sub. The Mead Corp.,** Cincinnati. He will coordinate the structural and technical design services for Mead Container sales. Prior to this assignment, Mr. Powlenko was packaging engineer for the home-laundry dept. of **General Electric.**

Heinrich Equipment Corp. has taken over the business of the **H. H. Heinrich Co. K. R. Sunderhauf,** as pres., will head the firm. **H. B. John** is in charge of flexographic printing-press and bag-machine sales and **R. H. Winkler** will handle extruders for thermoplastic materials. The company will remain at its New York headquarters.

F. M. Grauer, v.p., has assumed responsibility for product pricing, advertising and public relations for **Continental-Diamond Fibre Corp.,** Newark, Del. He succeeds **J. F. Anderson,** who has retired. **A. J. Briggs,** gen. sales mgr., will now be responsible for overall

beat well... goes for paper making, too

Rhinelander Glassine and Greaseproof papers package the products in this picture



Beat Well says the recipe – and the housewife who knows her cakes knows the importance of beating. And beating is equally important in the making of the high density wax laminated liners that protect cake mixes. These and a host of other time-saver foods are packaged in Glassine and Greaseproof papers . . . the wonder papers of modern packaging. Write for complete information stating your particular application.

In making Glassine and Greaseproof at Rhinelander, beating is a meticulously controlled process, considerably lengthened to transform the cellulose fibres into tiny strands, later tightly compacted on the paper machine. The microscopic fibrillae give Glassine and Greaseproof its density, its greaseproofness, and versatility.

These tight, dense papers keep foods fresh – resist greases, oils and fats–retain aromas, and protect flavor and quality.

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GLASSINE AND GREASEPROOF... *PAPERS FOR PROTECTIVE PACKAGING*

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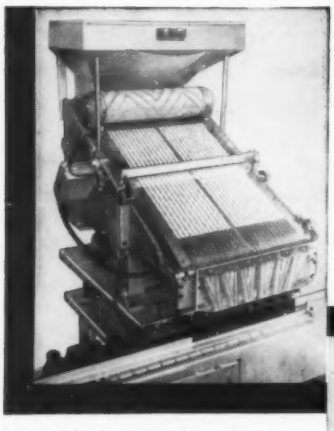

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- For compressed tablets and gelatin capsules
- Fills up to 100 bottles of 100's per min. Other models up to 300 bottles per min.
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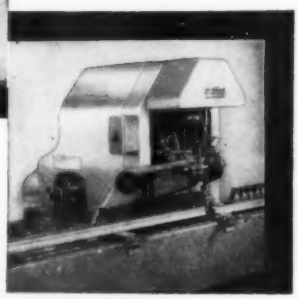

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Plants & People *(cont'd)*

direction of sales and marketing. H. M. **Dexter** will serve as consultant in these areas pending his retirement next November. **W. T. Shugg**, mgr. of marketing services, is now in charge of sales-office administration at all four CDF plants.

Paul F. Young, Jr., has been appointed package engineer for the cushioning products div. of **Armour & Co.**, Alliance, O. He will give design and technical consultation on all types of cushion packaging.

Steadman

Mead-Atlanta Paper Co., Atlanta, has appointed **Nat Steadman** as national sales mgr. of its Folding Carton Div. Mr. Steadman moves into this new post after a year as Southeastern sales mgr. He will coordinate policy and pricing in the Div. throughout Mead-Atlanta's five sales regions.

Jack L. Davies is new director of market planning at **Fibreboard Paper Products Corp.**, San Francisco. Before his appointment to this newly created post, Mr. Davies was a senior member of the marketing staff of McKinsey & Co., management consultant. Fibreboard's advertising dept., sales-analysis staff and market-research staff will come under his jurisdiction.

Kenneth Arnold has been elected v.p. of **Stein Hall & Co.**, New York. **John R. Lindquist** has been promoted to mgr. of the paper and corrugating dept. of the company, succeeding Mr. Arnold.

A new plastics and elastomers div. has been formed at the Research Center of **Hercules Powder Co.**, Wilmington, Del. Headed by **John R. Lewis**, the div. will organize product-development work on thermoplastic polymers, thermosetting resins, filled and reinforced plastics, rubber compounding and evaluation.

Ralph J. Bessinger has been elected v.p. of **The Papercraft Corp.**, Pittsburgh. Mr. Bessinger, who joined Papercraft in 1946, had been director of merchandising and head of the firm's Midwest office.

Acme Backing Corp., Stamford, Conn., has appointed **Robert L. Lee** as gen. sales mgr. of its Flexible Packaging Div. Mr. Lee recently resigned as New York sales mgr. of **Continental Can Co.'s Flexible Packaging Div.**

A new consulting company for manufacturers of packaging and materials-handling equipment has been set up by **C. J. Carney, Jr.**, formerly managing director of the **Society of Packaging & Handling Engineers**, known as **Carney Associates**, the new firm is located at 28 E. Jackson Blvd., Chicago.

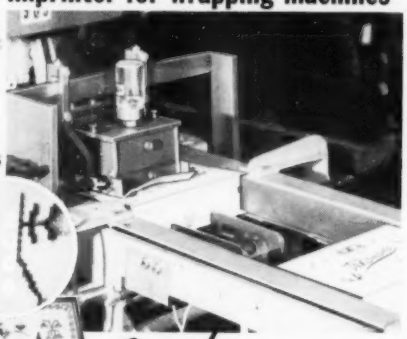
Three executives have been advanced to the post of v.p. by **Bemis Bro. Bag**

[*Continued on page 134*]

New midget imprinter for wrapping machines*

- Fully automatic
- Occupies less than 1 cu. ft.
- Instant drying action prevents smudging

Incisible ink imprint



Gottscho "Series 700" ROLAPRINTER® attachment Patented

Compact, lightweight, and easy to install yourself, this precision-made unit imprints codes, prices, contents descriptions, block-outs, promotion specials, etc. on cellophane, polyethylene, glassine, foil, paper, waxed paper, etc. Makes accurately registered, consistently uniform impressions up to 4"x6". Foolproof—requires no adjusting or skill to operate. No change parts needed for different cut-offs. Hundreds already in successful use.

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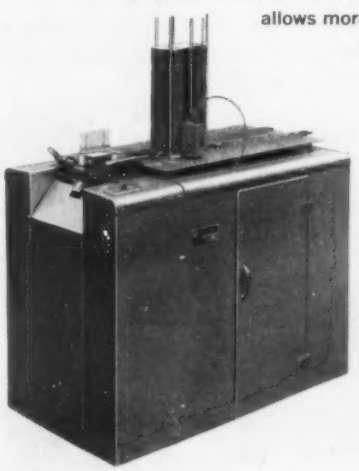
The TUCK-O-MAT Model 50 is a reliable, general purpose carton set-up machine...a real workhorse of the cartoning line. Hundreds of installations prove that it offers more versatility, handles a wider range of carton sizes, allows more adaptations...all at speeds up to 75 cartons per minute.



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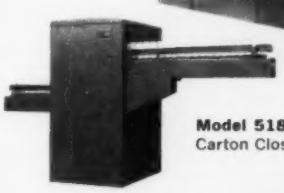

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ORTHOPLENE–from conventional polyethylene
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Ludlow Plastics is a division of LUDLOW PAPERS, INC., manufacturers of fine papers, gummed label papers, gummed tapes, building papers and packaging papers. Ludlow Papers, Inc., is a subsidiary of Ludlow Manufacturing & Sales Company, manufacturers of jute and jute products.

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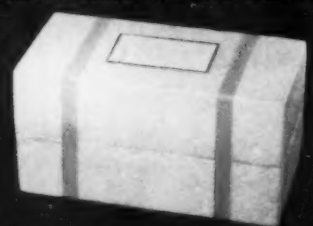

- REDUCES DAMAGE WEIGHT
- CUTS PACKING TIME
- SLASHES SHIPPING COST
- ENDS BREAKAGE

FOR FRAGILE, DELICATE ELECTRONIC EQUIPMENT, COSTLY INSTRUMENTS, LAMPS, TYPEWRITERS, APPLIANCES, ALL EASILY DAMAGED ITEMS

Lightweight (only 1½ ounces per board foot), yet strong, a CELLULITE package requires only banding for quick shipment. The outside surface won't chip or tear . . . is rugged enough to withstand shipping abuse. Ingenious locking grooves guard against moisture, dust and contaminated air. Molded expanded polystyrene is inert . . . mildew-proof, rot-proof, dust-free.

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THE GILMAN BROTHERS COMPANY

GILMAN, CONNECTICUT • EST. 1897

Plants & People

[*Continued from page 130*]

Co., St. Louis. They are: **T. H. Ashton** director of Central operations, Omaha; **L. A. Linville**, director of Western operations, San Mateo, Calif., and **H. J. Wehrenbrecht**, director of Southern operations, New Orleans.

Taylor

James B. Taylor, III, has been named a v.p. of **American Flange & Mfg. Co.**, New York. He is in charge of sales and product management for pail, can and glass fittings. Mr. Taylor was formerly pres. of **Upressit Metal Cap Corp.** and joined American Flange when it acquired certain Upressit assets.

Gilbert Plastics, Inc., has moved into a modern, one-story plant at Kenilworth, N.J. **Milton Ostorwitz**, pres. of the company, reports that the new facility will produce a diverse line of plastic products, including such packaging materials as: aerosol stack caps; "Seequal Pak" tomato trays; plastic baskets for produce, baked goods, frozen foods, etc., and a line of transparent, compartmented hinged polystyrene boxes.

The new development laboratory of the Plastics & Resins Div. of **American Cyanamid Co.**, New York, is now in full-scale operation at Wallingford, Conn. The new facility is expected to lead to the development of new products and modification of existing products. It is divided into six work centers: thermosetting resins, thermoplastic resins, pilot plant, physical testing, color laboratory and molding engineering.

Central Fibre Products Co., Quincy, Ill., has purchased **Mott Carton & Paper Co.**, St. Louis. The business will continue to be operated with present personnel (under the direction of **E. L. Mott**) as the **Mott Carton Div.**

Graves

E. King Graves has joined headquarters sales exec. staff of the Portland Div. of **Emhart Mfg. Co.**, Portland, Conn. He will assist in the coordination of marketing and sales planning for Emhart's **Standard-Knapp** packaging equipment. Mr. Graves recently resigned as mgr. of the packaging div. of the **American Management Assn.**, where he arranged seminars and clinics on packaging and organized the annual AMA packaging conference.

Henry B. Katz Industries, Newark, has purchased **Lawrence Packaging Supply Co.**, of the same city. Lawrence, which manufactures and distributes commercial and military packaging supplies, will be operated as a separate div.

Three changes in the administration of its Central Research Laboratories at

Summit, N.J., have been made by **Celanese Corp. of America**, New York. **J. Stewart Campbell** becomes mgr. of laboratory services, **Dr. Michael J. Curry** has been named mgr. of the plastics research dept., and **Dr. William J. Evers** becomes mgr. of the newly created exploratory polymer research dept.

John Dale, Ltd., London, England, has set up an aluminum aerosol-can line at its Bury, Lancashire, facility. The operation, employing the latest equipment, is almost completely automatic.

Ouer

Raymond F. Ouer has been promoted to gen. mgr. in charge of sales for **Rieke Metal Products Corp.**, Auburn, Ind. He succeeds **Truman W. Floyd**. Mr. Ouer, who has been associated with Rieke for eight years, was formerly asst. sales mgr. and prior to that was in charge of the West Coast Div. Mr. **Floyd** is now a member of the exec. committee.

Otto W. Hein, v.p., has been advanced to the corporate staff in charge of overall company production, investments and industrial relations for **Black-Clawson Co.**, New York. He is succeeded as gen. mgr. of the Paper Machine Div. at Watertown, N.Y., by **Joseph E. Hartford**, also a v.p. **Robert F. Vokes** has transferred to the Shartle Div. as gen. mgr. **Carl C. Landegger** succeeds him as admin. v.p. in the New York office.

E. J. Armelin has been elected director in charge of printing and packaging operations for **Paul Rogers Associates**, Norwood, N.J., industrial management consultant specializing in packaging.

Columbian Rope Co., Auburn, N. Y., has assumed the manufacture and sale of Jet-Pak bags. Bag-making machinery has been transferred from Newark, N. J., to Auburn. **Earl L. Wilson**, sales-promotion mgr. of Columbian, is in charge of sales. Jet-Pak is a heavy-duty insulated paper bag for shipping, mailing, warehousing and carry-home use.

William J. Harrison has joined **Jim Nash Associates, Inc.**, New York, as senior project director. Mr. Harrison has supervised package-design programs for a number of major companies, including Procter & Gamble, Glenmore Distilleries and Sinclair Refining.

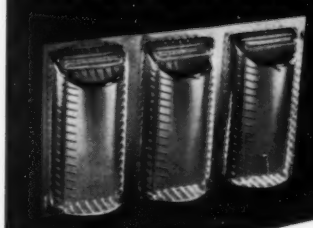
Redram Chemical Co., Inc., is the name of a new aerosol-filling company that has begun operations at 755 Utica Ave., Brooklyn. Pressure filling, cold filling or nitrogen gassing all will be done on a single filling line (supplied by **Mojonnier Associates**), says the company. **Jerry Marder** is pres. of the new company. **Sam Alessi** is secretary.

The **Hilton-Hawley Co.** of Cincinnati and **C. O. Monk, Inc.** Baltimore, have merged into one organization to be known as **The Monk-Hawley Co.** The merger is designed to provide national coverage for the combined printing-ink

[*Continued on page 138*]

DOMEPAK* *With a Special Purpose*

by PLASTIC ARTISANS, INC.



This March of Dimes display component is another example of PA's ability to design and mass produce "see through" packaging.

The sturdy PA Domepak has three coin holding compartments formed in clear plastic. Its flanges are held between the two glued layers of the cardboard display.

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BOXES

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HILLSIDE, NEW JERSEY

Plants & People

[*Continued from page 135*]

operations. Both companies specialize in the production of inks used to print corrugated containers, cartons and other packaging materials.

Crown Cork & Seal Co., Philadelphia, is constructing an 80,000-sq.-ft. can plant in Winchester, Va.

National Can Corp., Chicago, will build a new plant at Hanover, Pa. Production capacity will be 10,000,000 cans per week, the company says.

The Boston branch of **The Dobeckmun Co., div. The Dow Chemical Co.**, Cleveland, has moved to new quarters at 520 Boylston St. The company's Charlotte, N. C., sales office is now located at 504 Wachovia Bank Bldg.

A modern, multi-furnace glass container plant will be erected in New Orleans by **Owens-Illinois Glass Co.**, Toledo. O-I also has started construction of a corrugated-box plant near Minneapolis.

Acme Carton Co. is the new name of the **Acme Paper Box Co.**, Chicago.

Promotions

Glenn J. Brandenburg: to parafinned-carton sales mgr., Chicago Carton Div., **Container Corp. of America**, Chicago. **Samuel F. Leigh:** to sales mgr., Container Corp.'s New York national accounts office for folding cartons. **Albert A. Austin:** to sales mgr., Philadelphia and Valley Forge carton plants, Eastern Folding Carton Div.

Edwin D. Rose: to sales mgr., **Western Paper Box Div., Stone Container Corp.**, Detroit. He succeeds **Samuel Sadler**, resigned.

Robert D. Glidden: to v.p. in charge of paper operations, **Personal Products Corp.**, Milltown, N. J. He has been head of the company's **Cel-Fibe Div.** since 1955. Cel-Fibe makes cellulose wadding used as protective packaging.

Daniel H. Sangster: to Eastern district mgr., Foil Container Div., **Revere Copper & Brass, Inc.**, New York. He will be headquartered at the div.'s new Eastern district office at 75 E. 45 St., New York City.

Irving A. Smith: to mgr., gravure printing, **Forbes Lithograph Mfg. Co.**, Boston. **Chester E. Nightingale:** to asst. gravure-printing manager.

Robert Tooker: to mgr. of product sales, **Ekco-Alcoa Containers Inc.**, Wheeling, Ill.

Richard C. Phelps: to customer service group leader, **U. S. Industrial Chemicals Co.**, New York. He will supervise technical service to customers for Petrothene polyethylene resins.

Jerome J. Kipnees: to mgr. of the New York Div., **Container Laboratories, Inc.**, packaging-consultant firm, New York. **James A. Sergeant** resumes as Chicago div. mgr. after a six-month assignment to analyze operations on the West Coast.

Dr. Myron J. Helfgott: to v.p., **Lippincott & Margulies**, package design, New York. He continues as pres. of **Package Research Institute, Inc.**, an affiliate of Lippincott & Margulies.

John E. Keilly and **Chester T. Turner:** both to v.p., **Strawberry Hill Press, Inc.**, Long Island City, N. Y.

Edward W. Miller: to mgr. of the New York office, **Forbes Lithograph Mfg. Co.**, Boston.

James W. Ferguson: to field sales mgr., **Durez Plastics Div., Hooker Chemical Co.**, No. Tonowanda, N.Y.

Charles E. Fast: to gen. mgr., Southeast Div., **Sun Chemical Corp., General Printing Ink Co. Div.**, New York.

Appointments

Dr. J. D. Wethern: to technical director of the Carolina Div., **Riegel Paper Corp.**, New York. He was formerly coordinator of research and development for **Crown Zellerbach Corp.**, San Francisco, at Camas, Wash.

George A. Littlefield: from **Allied Paper Corp.** to mgr., Chemical Fine Paper & Board Div., **Standard Packaging Corp.**, New York. **Ralph H. Martin:** to asst. to the pres. of Standard, with responsibility for metalized paper.

Kenneth Masters: to Southwest mgr., **Packaging Materials Service, Div. Milprint, Inc.**, Milwaukee. The div. markets a line of pre-packaging materials for store-level packaging.

Thomas B. Hand: from **Forbes Lithograph Mfg. Co.** to mgr., Atlantic sales district, **Stecher-Traung Lithograph Corp.**, Rochester, N.Y. Mr. Hand's office is in New York City.

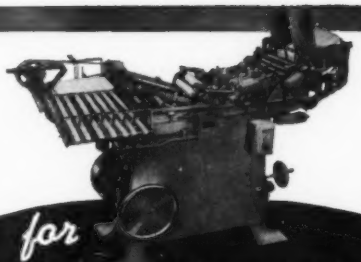
Joe Howard: to tech. director, fruit and vegetable packaging div., **Central Fibre Products Co.**, Quincy, Ill. He will work with packers and growers on technical problems and help plan improved packaging systems.

Adrian Greenwald: to director of marketing, a newly created position, **Ceragraphic Co., Inc.**, Hackensack, N.J. The company is a silk-screen printer specializing in applied-color labeling on glass, plastics and metals.

Spurgeon F. Barndt: from **Wyomissing Paper Products** to product sales mgr., gift-wrap and box-wrap papers, **Champion Paper & Fibre Co.**, Hamilton, O.

Obituaries

Phelps Kelley, exec. v.p. of **Miehle-Goss-Dexter, Inc.**, Chicago, died March 4. He was 57. Mr. Kelley's career with the graphic-arts-machinery manufacturing company began in 1935, when he joined the **Miehle Co.**, now a div. of M-G-D. He became a v.p. in 1940 and was promoted to exec. v.p. in 1946.



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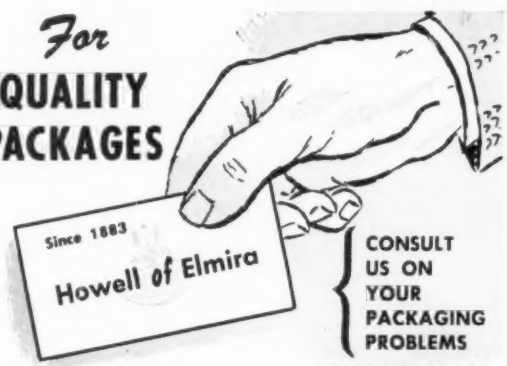

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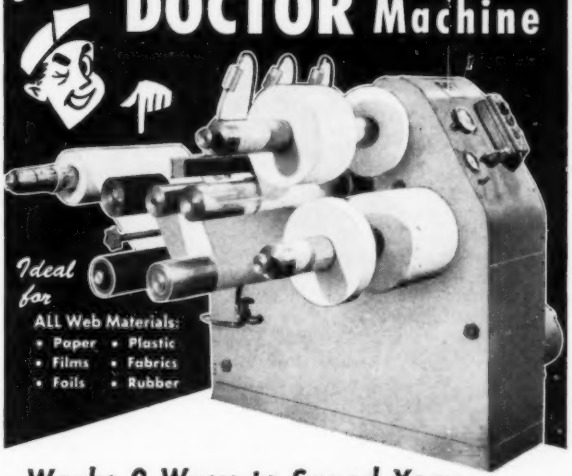

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- **Constant-Speed Drive Unit — adjustable up to 1000 f.p.m.**

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For Your Information

Roger F. Hepenstal of American Can Co. is the new pres. of the **Can Manufacturers Institute.** He succeeds **William J. Milton** of George A. Milton Can Co. Elected to succeed Mr. Hepenstal as v.p. of the organization at its annual meeting was **Reuben L. Perin** of Continental Can Co.

Now available is the third edition of the *Official Packaging Machinery Directory*, published by **Packaging Machinery Mfrs. Institute.** The directory is divided into three sections. Section I contains an alphabetical listing of trade names used by packaging-machinery manufacturers. Section II is an alphabetical listing of company names, including addresses, company executives and equipment manufactured. Section III contains an alphabetical listing of types of packaging. Under each heading in this list are the names of machinery manufacturers which are providing equipment for that type of packaging.

Contents of the third edition, which will fit into present *Official Packaging Machinery Directory* ring binders, are priced at $5 each. Price of the directory and binder combined is $12.50. Contact PMMI at 60 E. 42 St., New York 17.

Frederick S. Leinbach of Riegel Paper Corp. was elected chairman for 1959 of the **Glassine & Greaseproof Mfrs. Assn.** at the group's recent 28th annual meeting in New York. **Guy E. McCorison** of Thilmany Pulp & Paper Co. was elected vice chairman. Mr. Leinbach is a past president of the **Packaging Institute** and a current member of its board of directors.

Results of a special **American Management Assn.** packaging-research project are contained in a book titled "Packaging Research: an Inventory." It consists of a bibliography of significant recent publications dealing with the broad field of packaging, a review of research currently under way, a look at future research needed and a listing of sources of packaging information. The price of the book to AMA members is $4 per copy; to nonmembers, $6.

New officers for 1959 have been elected by the **Waxed Paper Institute.** They are: chairman—**William P. Lyle, Jr.,** of Nashua Corp., succeeding **George J. Cadotte, Sr.,** of Central Waxed Paper Co.; vice chairman—**Robert M. Koch** of Zimmer Paper Products, and secy.-treas.—**Harold E. Pierce** of Marathon, Div. American Can Co.

A record total of nearly 37,000,000 lbs. of aluminum foil was consumed in the production of rigid foil containers in 1958, it was reported at the annual meeting of the **Aluminum Foil Container Mfrs. Institute** in Chicago. **Stuart J. Swensson,** secy. of the association, pointed out that this figure compares with a consumption figure of 33,000,000 lbs. in 1957 and marks the second consecutive year in which the rate of increase has been more than 10%. He added that the expansion of aluminum-foil-container applications gained added momentum in 1958 with the introduction of new high-speed machinery for handling and closing the containers.

J. E. Bouhl of Anaconda Aluminum Co. was elected pres. of the **Laminated Foil Mfrs. Assn.** at its 11th annual meeting in New York. Newly elected v.p. is **Glenn E. Carter** of Reynolds Metals Co.

William H. Bulkeley of Connecticut Printers was elected pres. of the **Lithographic Technical Foundation** at the group's 35th annual meeting. Other officers elected were: v.p.—**Charles F. Roberts** of Brett Lithograph Co.; treas.—**George C. Kindred,** and secy.—**Robert T. Wolff** of Western Printing & Litho Co. New directors are: **Herbert Brod** of Lutz & Sheinkman, **Richard B. Knight** of Livermore & Knight and **William E. Zabel, Jr.,** of Zabel Bros.

Two new national directors and eight new territorial directors have been named by the **Folding Paper Box Assn.** New national directors are **Charles B. Stauffacher** of Continental Can and **Richard L. Siegel** of Diamond Gardner. New territorial directors are: **Noble Andre,** Andre Paper Box Co.; **Cameron Clark, Jr.,** The Warner Bros. Co.; **D. W. Dehoney, Jr.,** Gaylord Container Corp.; **Arthur Harris,** Mead-Atlanta Paper Co.; **Douglas T. Neale,** The Edwin J. Schoettle Co.; **G. M. Robertson,** Flour City Paper Box Co., **J. Dwight Tudor,** The Flintkote Co., and **Kramer E. Verhoeven,** Consolidated Paper Co.

The "100 Best Cartons of the Year," award winners in the 1959 folding-carton competition sponsored by the **Folding Paper Box Assn.,** are now being exhibited in a 20-city coast-to-coast tour that began in Minneapolis.

A 42-page booklet, "Interactions Between Four Volatile-Corrosion Inhibitors," is available from the **U. S. Dept. of Commerce.** As discussed in the booklet, the mutual compatibility of four VCI-on-kraft papers was evaluated in pressure contact and vapor mixtures to compare the corrosion inhibition afforded steel panels by the single papers and their combination. Results indicated inadequate compatibility between papers under pressure contact and that high humidity increases incompatibility. However, the results of the vapor-phase mixing tests indicate complete compatibility of the vapors of the four VCI papers, thus allowing mixing where vapors are used. For copies, at $1.25 each, write Office of Technical Services, U.S. Dept. of Commerce, Washington 25, D.C.

Newly elected pres. of the **Packaging Assn. of Canada** is **Samuel Chum Torno,** v.p. of Danforth Wines, Ltd., Toronto. He succeeds **C. W. Stephens,** recently retired v.p. and gen. mgr. of Dominion Paper Box Co.

The second annual Ideas in Design Materials Show, sponsored by the **Industrial Designers Institute,** will be held Oct. 7-9 at the Commodore Hotel in New York. The show will feature exhibits of materials used by industrial designers in product design and development. For further data, contact the show manager, Leonard S. Rogers, at 19 W. 44 St., New York.

The metal-can industry next year will celebrate the 150th anniversary of the invention of the can, reports the **Can Manufacturers Institute.** The official

Events

May 13-14—**Packaging Machinery Mfrs. Institute,** third regional meeting, Benjamin Franklin Hotel, Philadelphia.

May 14-15—**Fibre Drum Mfrs. Assn.,** annual meeting, Waldorf Astoria Hotel, New York.

May 18-20—**National Paperboard Assn.,** spring meeting, The Greenbrier, White Sulphur Springs, W. Va.

May 22-23—**The United States Trademark Assn.,** annual meeting, Pocono Manor, Pa.

May 22-28—**American Rack Merchandisers Institute,** mid-year merchandise meeting, Americana Hotel, Miami Beach.

May 24-27—**Super Market Institute,** 22nd annual convention and food trade exhibition, Atlantic City.

May 25-27—**Technical Assn. of the Pulp & Paper Industry,** 10th coating conference, Statler Hotel, Boston.

May 25-27—**American Society for Quality Control,** annual convention and exposition, Public Hall, Cleveland.

May 25-28—**American Society of Mechanical Engineers,** design engineering show, Conventional Hall, Philadelphia.

June 11-12—**Wirebound Box Mfrs. Assn.,** quarterly meeting, Sheraton-Blackstone Hotel, Chicago.

June 22-26—**American Society for Testing Materials,** 62nd annual meeting, Chalfonte-Haddon Hall, Atlantic City.

basic theme and slogan for the commemorative year will be "Metal Cans—Serving Man for 150 Years." CMI says the industry will mark the can sesquicentennial on local, state and national levels in 1960, with principal suppliers and customers being invited to participate in the observance.

The Polyethylene Steering Committee of the **National Flexible Packaging Assn.** met recently in Chicago to discuss measures for the orderly market development of polyethylene shipping bags and for avoiding misapplications caused by inadequate information. Chairman **A. D. Hoeppner** of Bemis Bag Co. and other speakers stressed the need for education both within the supplying industry and among users. It was noted that drop tests alone might not be adequate determinants of resistance to shock and puncture in polyethylene shipping bags.

It was recommended that Federal standards of quality be established as quickly as possible, and that **The Society of the Plastics Industry** be invited to widen the scope of its proposed standard to include gauges over the present 6-mil limit and possibly as high as 20 mils. Task committees were appointed to handle technical and marketing problems for heavy-duty polyethylene shipping bags and for case and drum liners.

Norman Gort has been appointed director of publicity for the **Glassine & Greaseproof Mfrs. Assn.**

The **Containers & Packaging Div.** of the Business & Defense Services Administration, **U.S. Dept. of Commerce,** will conduct a survey of the glass-container, closures and metal-can industries to determine their capacities to produce containers and closures for survival items (such as foods and medical supplies) in the event of a national emergency. The survey is being made at the request of the Office of Civil and Defense Mobilization as part of the survival-items program announced by the Federal Government in 1958.

Food technologists from the U.S. and **U. S. Dept. of Agriculture** officials will present a bilingual (English and Spanish) program for Latin American government officials and food-industry representatives from 17 countries at the annual Inter-American Food Congress, to be held June 9-13 at the Carillon Hotel in Miami Beach, Fla. The meeting is sponsored by the **Inter-American Food Institute.** Purpose of the congress is to promote effective cooperation [illegible] exchange of ideas among the peoples of South and Central America and the Caribbean area relative to technical advances in the production, processing, packaging and marketing of foods.

The **Point-of-Purchase Advertising Institute** held its 13th annual exhibit Mar. 24-26 in Chicago. Reported to be the largest exhibit in POPAI's history, the point-of-purchase wares of 77 member companies were shown in 134 booths. Six concurrent merchandising clinics were conducted on the second day.

One of a battery of new Toledo Model 9460 Automatic Checkweighers for bags and cartons in operation at A. E. Staley Manufacturing Company, Decatur, Illinois.

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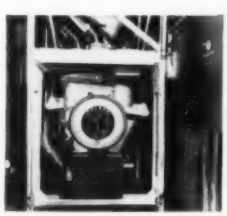

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U. S. Patents Digest

Method of Making a Container, Alfred Binder (to The Sherwin-Williams Co., Cleveland, a corporation of Ohio). U.S. 2,871,553, Feb. 3. A process for making a container composed of a metallic can body, a metallic bottom seamed to one end, a metallic top having a rimmed circular opening therein seamed to the other end, and a nonmetallic spout.

Wrapper-Indexing Mechanism for Wrapping Machines, Eric J. Forgo (to Battle Creek Packaging Machines, Inc., Battle Creek, Mich.). U.S. 2,871,639, Feb. 3. In a wrapping machine, a pair of parallel shafts having a pair of wrapping rolls thereon and driven thereby, drive means connected to rotate said shafts and rolls.

Device for Opening Carton-Closure Flaps, Leon H. Tobey (to Bloomer Bros. Co., Newark, N.Y., a corporation of New York). U.S. 2,871,641, Feb. 3. A device for folding outwardly the closure flaps foldably connected with the side walls of a paperboard carton, for folding said flaps from a position in extension of and parallel with said side walls.

Art of Producing Side-Gusseted Bags, Lewis P. Mercer (to Milprint, Inc., Milwaukee, a corporation of Delaware). U.S. 2,871,771, Feb. 3. A method of producing gusseted bags from a web of flexible sheet material.

Crate-Lining Machine, Ernest A. Verrinder (to Food Machinery & Chemical Corp., San Jose, Calif., a corporation of Delaware). U.S. 2,871,773, Feb. 3. A machine for lining a container, comprising means for supporting and positioning an open-top container and an endless chain conveyor having a portion movable above said container.

Control for Bag-Filling Machine, Erwin M. Lau (to Black Products Co., Chicago, a corporation of Illinois). U.S. 2,871,891, Feb. 3. The method of controlling the operation of a bag-filling machine of the automatic cut-off type having a hopper, a weight-responsive bag-supporting spout and an auger extending from said hopper into said spout.

Package for Displaying Pens, Pencils and the Like, Donald C. Dumont (to Dennison Mfg. Co., Framingham, Mass., a corporation of Massachusetts). U.S. 2,872,030, Feb. 3. For displaying pens, pencils and other articles, a package comprising a box and a sheet of resilient transparent material which is shorter but wider than the box and which is fitted into the box in arched position.

Paperboard Wrapper Having Strengthened Edges, Homer W. Forrer (to Mead-Atlanta Paper Co., Atlanta, a corporation of Ohio). U.S. 2,872,036, Feb. 3. A package of cylindrical objects, such as cans, said package comprising a four-sided wrapper with open ends and at least one row of said objects enclosed thereby.

Anti-Skid Compositions and Container Material Coated Therewith, Elmer E. Leptien (to St. Regis Paper Co., New York, a corporation of New York). U.S. 2,872,094, Feb. 3. A smooth finished kraft paper bearing printed matter upon which there has been applied an aqueous composition consisting essentially of about 3 to 15% by weight colloidal silica and about 3 to 15% by weight of finely divided extender material.

Collapsible Cellular Carton, Oscar L. Vines (to Alford Cartons, Ridgefield Park, N.J., a corporation of New Jersey). U.S. 2,872,096, Feb. 3. A collapsible paperboard carton having a pair of longitudinally connected abutting sections forming a pair of rows of cells, with each row composed of at least one group of three cells.

Process and Apparatus for Packaging Flowable Materials, William E. Meissner (to American Viscose Corp., Philadelphia, a corporation of Delaware). U.S. 2,872,763, Feb. 10. A method of packaging flowable materials, including the steps of disposing a gob of plastic material onto an annular member, maintaining said material in soft condition.

Apparatus for Measuring Quantities of Small Articles and Packaging Same, Carl P. Michlein (to The Shelton Tack Co., Shelton, Conn., a corporation of Connecticut). U.S. 2,872,765, Feb. 10. Apparatus for measuring and packaging quantities of small articles, comprising vibratory feed means for feeding said articles from a source of supply to a stationary loading station.

Can-Handling Apparatus, Edmond R. Dudley and John H. Quast (to Peerless Equipment Co., Mountain View, Calif., a corporation of California). U.S. 2,873,018, Feb. 10. Apparatus of the character described, comprising a guideway for guiding cans or the like along a defined path and sensing means for sensing end coding on the cans.

Packaging Device, Robert D. Rollie (to Minnesota Mining & Mfg. Co., St. Paul, Minn., a corporation of Delaware). U.S. 2,873,025, Feb. 10. A packaging pad suitable for releasably retaining thereon articles of annular shape, said pad having at least one pair of opposed wings integral with and hingedly affixed to said pad at their adjacent edges.

Label-Applying Means, Herman D. Manas (to M.R.M. Machinery Co., Inc., Brooklyn, a corporation of New York). U.S. 2,873,040, Feb. 10. In a labeling machine, means for completely adhering a label to a container, including an adhesive-distributing member.

Container with Cover Lock, Paul D. Friday (to Paper Maid, Inc., Portland, Ore., a corporation of Oregon). U.S. 2,873,057, Feb. 10. A molded pulp carton comprising a body section and a cover section, rim flanges on said sections, a D-shaped opening in one of the flanges and a hollow conical stud projecting in a perpendicular direction from the other flarge in a position to enter said opening.

Method of Making Resin-Lined Rubber Containers, Mark W. Olson, Valmar Fournier and Ira D. Dobbs (to United States Rubber Co., New York, a corporation of New Jersey). U.S. 2,873,227, Feb. 10. A method of making a firmly adhered laminate of polyethylene and rubber of a desired shape, comprising the steps of first forming a laminate of said polyethylene with a layer of vulcanizable rubber.

Method and Apparatus for Packaging Cans and the Like, Lawrence E. Arneson (to Federal Paper Board Co., Bogota, N.J., a corporation of New York). U.S. 2,873,565, Feb. 17. A method of packaging cans and like articles in a collapsible paperboard container featuring hingedly articulated top, bottom and side panels and pairs of opposed end wall flaps hinged to opposite extremities of said top and bottom panels.

Merchandise Container and Method of Making a Merchandise Package Therefrom, John D. Sylvester and Edwin E. Messmer (to Amsco Packaging Machinery, Inc., Long Island City, a corporation of New York). U.S. 2,873,566, Feb. 17. A method of making a merchandise package of the character described, which consists in first making a merchandise container in the form of a tubular body open at both ends and provided at one of said ends with a turned-back protective flap.

Bundle-Tying Machine, Benjamin H. Bunn (to B. H. Bunn Co., Chicago, a corporation of Illinois). U.S. 2,873,664, Feb. 17. In a tying machine for bundles of stacked envelopes and the like which are compressible at their marginal regions, said machine having means for wrapping twine around the bundle.

Dispenser, John J. Miskel, Hugh Horner and Eugene J. Kalnin (to Chas. Pfizer & Co., Inc., Brooklyn, a corporation of Delaware). U.S. 2,873,886, Feb. 17. A dispenser for maintaining and delivering a medicament under antiseptic conditions, comprising a collapsible container including an externally threaded neck sealed by a thin sealing member.

Metal Container Having a Metal Plug and a Plastic Pouring Spout Surrounding Said Plug, Raymond H. P. Kneusel (to Crown Cork & Seal Co., Philadelphia, a corporation of New York). U.S. 2,873,897, Feb. 17. A metal container having an end, the metal of said end being turned upwardly into an upstanding wall defining an opening.

Package and Method of Forming the Same, William A. Ringler (to Diamond Gardner Corp., New York, a corporation of Delaware). U.S. 2,874,524, Feb. 24. A method of forming and loading a carton which comprises the steps of providing a hollow mandrel about which the carton is to be formed.

Capping Apparatus, Frederick E. Fauth and Robert S. Jump (to Crown Cork & Seal Co., Baltimore, a corporation of New York). U.S. 2,874,526, Feb. 24. In

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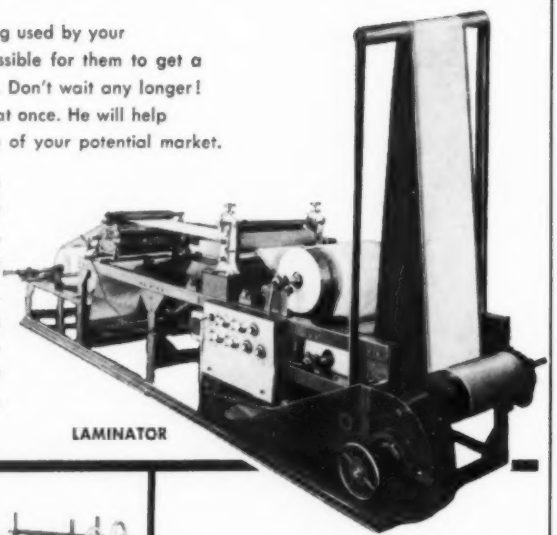

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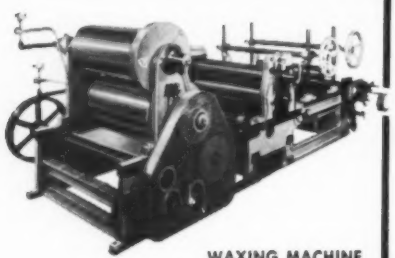

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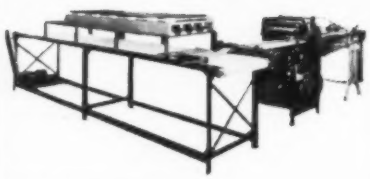

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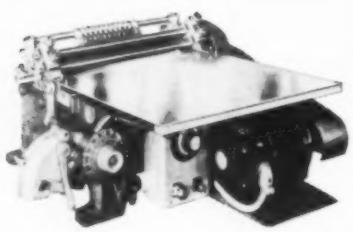

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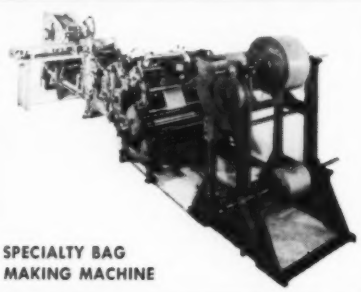

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Patents *(continued)*

a capping apparatus for sealing loosely positioned caps on containers, a frame structure and a container conveyor means which is designed for continuously moving said containers.

Container Filler, Robert W. Sesler, Darrell H. Baldwin and Glen O. Sprouse (to Union Carbide Corp., New York, a corporation of New York). U.S. 2,874,733, Feb. 24. A container filler for introducing a feed spout into a container inlet and exhausting fumes liberated during the filling operation.

Can Carrier, Patrick A. Toensmeier (to The New Haven Board & Carton Co., New Haven, a corporation of Connecticut). U.S. 2,874,833, Feb. 24. A carton for cans having flat ends with chimes, which comprises a pair of side walls lying parallel to each other.

Multiple-Article Package, William W. Woodward (to Alton Box Board Co., Alton, Ill., a corporation of Delaware). U.S. 2,874,834, Feb. 24. A unitized multiple-layer package of articles, comprising a bottom tray supporting a plurality of articles arranged in at least two separate layers.

Double-Walled Container with Base, John M. Canty and Peter M. Riede (to Union Carbide Corp., New York, a corporation of New York). U.S. 2,874,865, Feb. 24. A container for storing low-boiling liquefied gas material, including a casing and a vessel within said casing suspended vertically therefrom.

Can-Carrying Carton, Russell James Hennessey (to Waldorf Paper Products Co., Ramsey County, Minn., a corporation of Minnesota). U.S. 2,874,869, Feb. 24. A can carrier including rectangularly arranged side and end walls and a partition wall secured parallel to two opposed walls.

Handle Carton, Peter C. Collura (to Container Corp. of America, Chicago, a corporation of Delaware). U.S. 2,874,870, Feb. 24. In a handle carton, a bottom wall panel and side wall panels extending upward from said bottom wall panel of said carton.

Liquid-Tight Container with Fibrous Side Wall, Raymond H. Horning and Isaac L. Wilcox (to Sealright-Oswego Falls Corp., Fulton, N.Y., a corporation of New York). U.S. 2,874,888, Feb. 24. A leakproof bulk container or the like, comprising a bottom having a discoidal portion formed at its periphery with a downwardly diverging portion merging with an external bead.

Carton for Packing Fruits, Vegetables or the Like, William F. Hale (to Paperbox Corp., Oakland, a corporation of California). U.S. 2,874,889, Feb. 24. A two-piece telescopic carton comprising a unitary top member having a top rectangular section and four side sections integral therewith extending downwardly therefrom.

Container and Method of Making Same, Jack R. Kelsall (to Growers Container Corp., Salinas, Calif., a corporation of California). U.S. 2,874,891, Feb. 21. A collapsed, stackable, elongated, rectangular fibreboard box having side and end walls hingedly connected together, said end walls being narrower than said side walls.

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CONVEYORS. 24-page illustrated catalog describes gravity and powered roller conveyors for handling filled bags, sacks, cartons, boxes, crates, etc. Also describes auxiliary equipment. Standard Conveyor Co. **(E-950)**

GLASS PACKAGING DESIGN. 16-page illustrated booklet describes range of packaging problems handled at its new Advance Styling & Design Center. Discusses package engineering, graphic art, merchandising analysis, etc. Hazel-Atlas Glass Div., Continental Can Co. **(E-951)**

STOCK LABELS. 8-page illustrated catalog gives prices and specifications for this company's lines of carton, roll, office, special, etc., stock labels. Ever Ready Label Corp. **(E-952)**

MOISTURE-RESISTANT CORRUGATED BOARD. 4-page illustrated folder describes a wax-impregnated corrugated board that maintains its strength under typical hydrocooling and top-icing operations. Hinde & Dauch. **(E-953)**

FOAM MATERIAL. Brochure describes the properties, manufacture, molding, and fabrication of this company's expandable polystyrene. Discusses this material's special applications in the packaging and display fields. Koppers Co., Inc. **(E-954)**

PHARMACEUTICAL PACKAGING EQUIPMENT. File folder contains illustrated data sheets describing this company's lines of tablet inspection, filling, and counting machines; and also elevating feeders, conveyors and cottoning machines. The Lakso Co., Inc. **(E-955)**

WHEEL, CAPPER INSERT COMPOUND. Technical data sheet describes features of a compound for making capper inserts and guide wheels for use in capping and packaging equipment. Research Sales, Inc. **(E-956)**

BAKED GOODS PACKAGER. Illustrated 4-page brochure describes a machine that overwraps buns and sweet rolls at rates up to 70 per min., with or without bottom cards, U-board or trays. Battle Creek Packaging Machines, Inc. **(E-957)**

SHEETING, CUTTING EQUIPMENT. Series of illustrated brochures describes this company's lines of high-speed machines for precision sheeting of paper, board, pulp, film, foil, and fabric. The Clark-Aiken Co. **(E-958)**

LIQUID FILLING MACHINES. Illustrated brochure describes this company's lines of vacuum and gravity liquid filling machines, including foamy liquid fillers. Units are straight line, automatic and semi-automatic. Packer Machinery Corp. **(E-959)**

PRE-PACKAGING, MERCHANDISING MEATS. 62-page illustrated instruction manual gives self-service packaging techniques for wrapping meats, poultry and fish with this company's Pliofilm. Tells how to arrange, identify, light, and merchandise meats. The Goodyear Tire & Rubber Co. **(E-960)**

COMPUTING STEEL SHIPPING CONTAINER WEIGHTS. 8-page technical paper explains, with the use of tables, how to compute the weights of shipping containers made of sheet steel. Steel Shipping Container Institute, Inc. **(E-961)**

ASPHALT CARTON. Illustrated 4-page brochure describes a one-piece, 100-lb., weather-resistant, sewn-bottom asphalt carton. Gaylord Container Corp. **(E-962)**

PLASTIC FOAM TAPE. Series of bulletins describe a protective, shock-absorbent, light-weight, pressure-sensitive foam tape for lining packaging cases to house and ship delicate parts. Tape also has general cushioning, insulation and noise reduction uses. United Mineral & Chemical Corp. **(E-963)**

SIX-PACK BEER MERCHANDISING. 64-page illustrated booklet explains to food store personnel the merchandising value of stocking and displaying beer in six-packs. Container Corp. of America. **(E-964)**

PACKAGING PAPERS. Kit contains specifications, prices and samples of this company's white embossed, and light blue and light gray box cover papers. Matthias Paper Corp. **(E-965)**

LABELS. 48-page illustrated booklet displays labels, seals, tags, together with case histories pointing out the specific job each does. Stresses value of labels as self-service salesmen. Allen Hollander Co., Inc. **(E-966)**

INNERSEALER. Illustrated catalog sheet describes an automatic innersealer for friction lids that sorts, feeds, and applies friction lids to various sizes of round and rectangular cans having metal tops, at speeds up to 120 per min. Resina Automatic Machinery Co., Inc. **(E-967)**

GASES FOR FOOD PRODUCTS. 24-page illustrated brochure discusses the roles gases play in blanketing, pressure-packaging, quick-freezing and chemical-processing. Also gives pointers on selection of gases, storage, handling, etc. Air Reduction Co., Inc. **(E-968)**

CONVEYING SYSTEMS. 24-page illustrated brochure describes this company's unscrambling and accumulating tables; its lateral curve conveyor; and its bottle, jar, can and container conveyors for foods, drugs, beverages, cosmetics, etc. Island Equipment Corp. **(E-969)**

HEIGHT-OF-FILL MONITOR. 4-page illustrated brochure describes an automatic, height-of-fill monitor that inspects up to 900 containers per min. Instrument detects variations in fill height of 1/32 in.; checks sealed, opaque containers on a conveyor line. X-Ray Dept., General Electric. **(E-970)**

POLYETHYLENE RESINS. 24-page illustrated booklet describes a line of polyethylenes whose lower melting points and lower melt viscosities lend them to use in the manufacture of paper coatings, waxes and polishes, etc. Eastman Chemical Products, Inc. **(E-971)**

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LAMINATORS. Illustrated 8-page brochure describes combination laminators and coaters, a coater and thermoplastic mounter for free foil, a thermoplastic laminator for plastic films, a wax-lead mounter and coater and a glue and hot melt laminator. Inta-Roto Machine Co., Inc. **(E-972)**

EMULSIONS. Technical booklet gives features, properties and prices for polyvinyl acetate emulsions used in the making of adhesives, binders, sealers, and coatings. H. B. Fuller Co. **(E-973)**

VOLUMETRIC FILLERS. Technical bulletin describes machines that fill containers with up to 5 lbs. of powders, nuts, crystals, candy, spices, etc., at rates up to 80 fillings per min. Frazier & Son. **(E-974)**

PLASTICS FORMING MACHINES. Illustrated catalog file folder contains sheets describing machines for forming thermoplastics into transparent trays, skin and blister packs, 3-dimensional counter displays, mammoth window and floor merchandisers, etc. Standard-Knapp Div., Emhart Mfg. Co. **(E-975)**

MARKING PENS. Illustrated brochure describes a felt-point pen for marking plastic containers, cellophane, glass jars, various foils, wood boxes. When used with special inks, it marks hot, cold, and wet surfaces in color. Felt-Point Pen Div., Marsh Co. **(E-976)**

PILLOW-TYPE PACKAGER. Illustrated 4-page brochure describes a machine that forms, fills, and seals pillow-type packages at rates up to 240 per min. Handles solids, powders, liquids or granules. Lynch Robo Corp., Div. of Lynch Corp. **(E-977)**

ALUMINUM FOIL. Booklet contains samples and specifications of this company's grades of aluminum foil for functional and decorative applications. Kaiser Aluminum & Chemical Sales, Inc. **(E-978)**

POLYETHYLENE BAG MAKER. Illustrated data sheet describes machine that produces sideweld polyethylene bags from sheet stock. Machine's web guide can be adjusted to provide lip of any desired length. Lectromatic Devices, Inc. **(E-979)**

CUSHIONING MATERIALS. 12-page illustrated brochure describes cellulosic rolls and sheets for cushioning products to meet military, and United States and Canadian governmental packaging specifications. Kimberly-Clark Corp. **(E-980)**

INSTANT DRYING-TYPE MARKER. Illustrated data sheet describes a machine that produces instant drying, one-line imprints on boxes, cartons, labels, bags, envelopes, etc., at rates up to 130 printing strokes per min. Markem Machine Co. **(E-981)**

PRINTING INKS. Color guide illustrates standard and gloss colors, and standard blacks. Contains letterpress and offset mileage estimation charts. Discusses common problems involving inks. McCutcheon Bros. & Quality, Inc. **(E-982)**

LABELER. 8-page illustrated brochure describes an automatic machine that labels from 120 to 300 cylindrical or tapered round or flat bottles per min. Machine features shockless bottle feeding. New Jersey Machine Corp. **(E-983)**

PACKAGING ADHESIVES. 4-page illustrated brochure describes this company's carton-sealing, case-sealing, bottle-labeling, and round container-labeling glues; also its wrapping and bundling, and resin emulsion adhesives. Paisley Products, Inc., Div. of Morningstar, Nicol, Inc. **(E-984)**

AEROSOL FILLING EQUIPMENT. Series of illustrated brochures describe this company's lines of propellent accumulators, purgers, pumps, water baths, conveyors, unscramblers, etc. Mojonnier Associates, Inc. **(E-985)**

SLITTER-REWINDERS. Illustrated 16-page booklet describes application, construction and operational features of three slitter-rewinders. Specifications included. The Cottrell Co. **(E-986)**

IMPRINTING MACHINE. 4-page illustrated brochure describes an automatic machine that feeds, imprints, and stacks up to 7,500 pieces per hr. Handles folding boxes, cartons, bags, tags, packing envelopes, etc. Pitney-Bowes, Inc. **(E-987)**

BULK CARGO CONTAINERS. 6-page illustrated brochure describes lines of triple-wall corrugated board bulk cargo containers for consolidation of multiple shipments of plastics, produce, textiles, mechanical parts, chemicals, etc. Tri-Wall Containers, Inc. **(E-988)**

PLASTIC SPECIMEN CONTAINERS. Illustrated catalog sheet describes this company's lines of shatterproof, clear plastic vials, lined steel closures, fibreboard carrying cases, and lined carrying case closures. Medical Products Div., Celluplastic Corp. **(E-989)**

PLASTIC CONTAINERS. 4-page catalog gives prices and specifications for threaded and shell-type, clear cellulose acetate tube containers; also, for friction, snap and screw closures for these containers. Flex Products Corp. **(E-990)**

PLASTIC PACKAGING. Illustrated literature describes this company's services for the printing and converting of packaging films; also the design and production of plastic bags for foods, textiles, chemicals, etc. Keystone Packaging Service. **(E-991)**

AUTOMATIC TAPE PACKAGER. Illustrated 4-page brochure describes an automatic machine that tapes pens, razor blades, lipsticks, tubes, etc., to rack cards or other products at a rate of 60 per min. Warren J. Habgood Co. **(E-992)**

DESIGNING METAL CONTAINERS. Three illustrated brochures discuss design, color, printing and merchandising considerations entering into the manufacture of lithographed metal containers and specialties. Also describe company's design and manufacturing service. J. L. Clark Mfg. Co. **(E-993)**

Fill out and mail this card now

Postage Will be Paid by Addressee

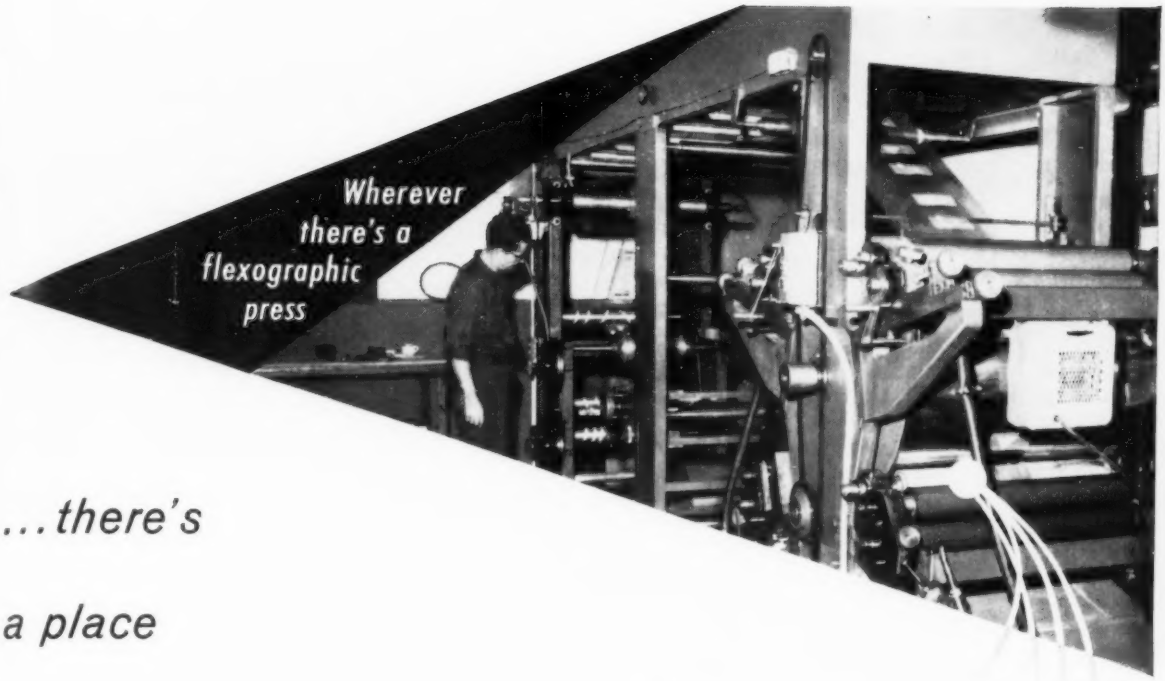
No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY CARD
First Class Permit No. 2656 (Sec. 34.9, P. L. & R.), New York, N. Y.

MODERN PACKAGING

Village Station Box No. 103

New York 14, N. Y.



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MOSSTYPE

aids to better printing

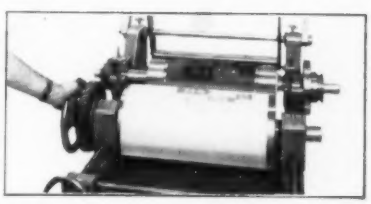
Rubber Plates

Quality-controlled and triple-checked for accuracy. Plainback, stickyback, precurved and brassback types made to rigid MOSSTYPE standards in world's most modern platemaking plant.

Rubber Design Rollers

The perfect answer for printing continuous all-over designs and complex jobs with close register or many small repeat units. Permanently vulcanized on "D-MOUNTS" or integral cylinders.

MOUNTER-PROOFER® Machines



A profit-making "must" in any plant, large or small. Saves many times its cost in press time. Provides the most accurate and efficient way to set up jobs, proof them off the press.

"D-MOUNT®" Plate Cylinders

Cost less, weigh less, take up less space and help you print better too. Foolproof and easy to use—shrink-fit principle assures positive accuracy and concentricity. *Hundreds* of users average 50% saving in cylinder costs since switching to "D-MOUNTS"

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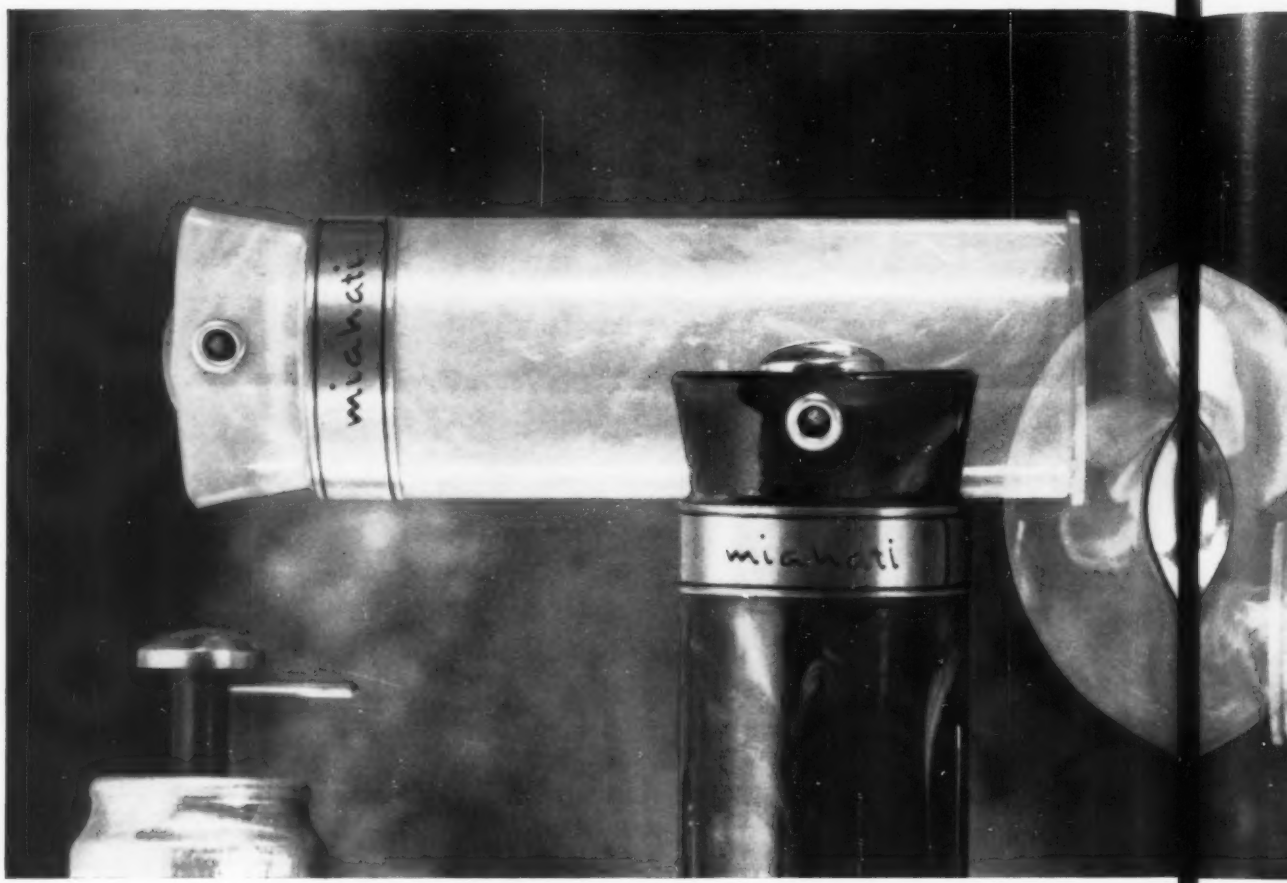
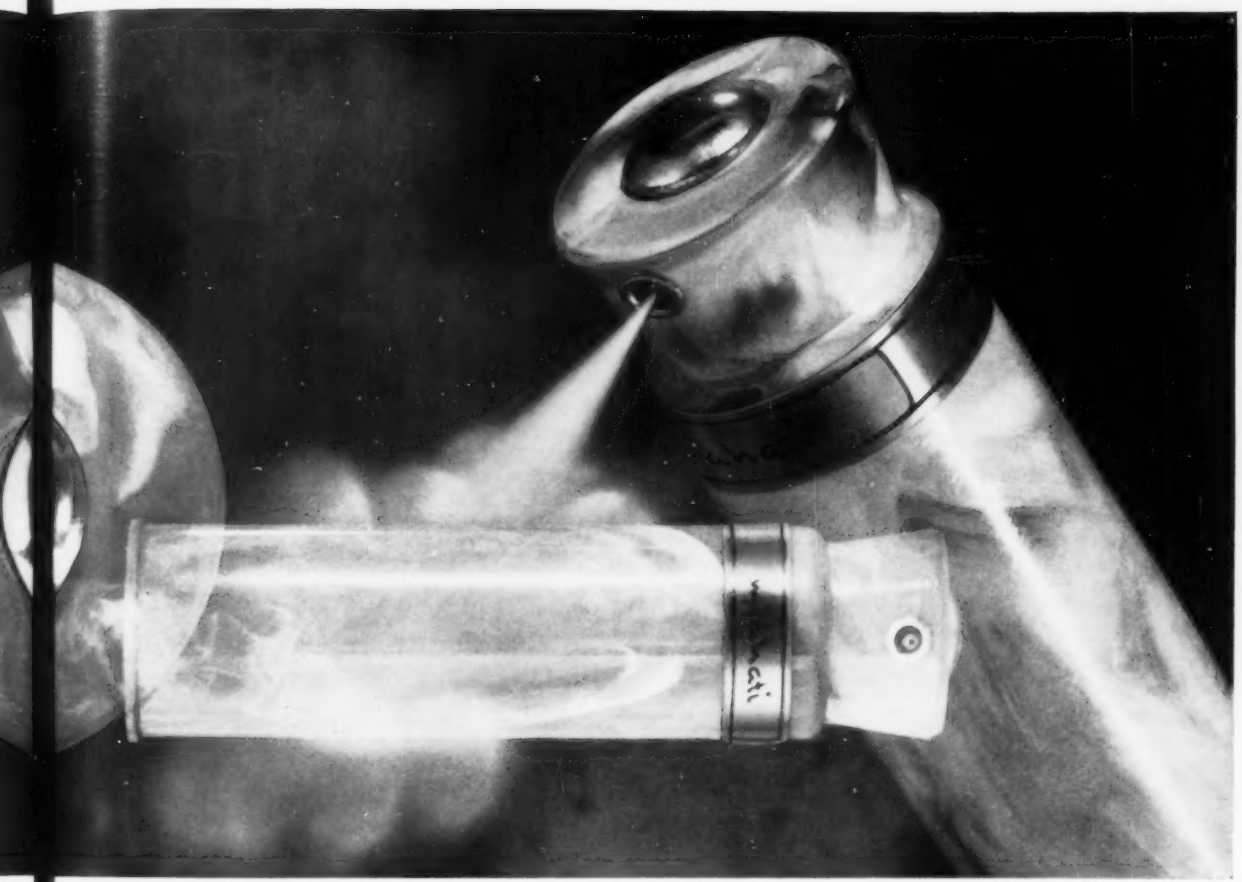
Pacific Coast: BOJANOWER MACHINERY SERVICE CO., Los Angeles • Canada: MANTON BROS., LTD., Toronto

C-11 Plastic gives 80% saving in perfume packaging...



NEW GLAMOR AND STRENGTH FO



FOR AEROSOL CONTAINERS

Elegant . . . simple . . . sure to sell. Miahati puts perfume and cologne in an aerosol bottle—and encases the bottle in marble-toned BAKELITE Brand C-11 Styrene Acrylonitrile Copolymer Plastic.

Practical, too . . . C-11 Plastic brought Miahati an 80% saving in time and material over the plastic used previously. Its cost was lower, there was less waste, and production was easier. And the strength and chemical resistance of C-11 Plastic keep the package looking handsome. Does it hold similar benefits for you? Ask your packaging supplier, or write Dept. ED-01G, Union Carbide Plastics Company, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y.
In Canada: Canada Chemicals Company, Division of Union Carbide Canada Limited, Toronto 7.

UNION CARBIDE

"Bakelite" and "Union Carbide" are registered trade-marks of Union Carbide Corporation.

URETHANE FOAM CONTAINER DESIGN

wins customer satisfaction and a Gold Medal Award for New England Container Company

By taking advantage of urethane foam's high shock absorption and lightweight properties, New England Container Company designed an electronic instrument container that 1) costs 50% less than comparable containers, 2) saves their customers 60% in storage space and 3) reduces shipping charges 40%.

The Hardi-Pak, developed as a teamwork project by New England Container, Hardigg Industries, manufacturers of package cushioning devices, and Nopco Chemical Company, urethane foam manufacturer, won a Gold Medal Award in the bi-annual Fibre Box Competition this spring, competing against 570 entries in 18 categories.

"We use urethane foam because it absorbs impact energy better than any other substance we know of," says Mr. James Hardigg, a mechanical engineer and mathematician who is well acquainted with such scientific package-testing devices as accelerometers and cathode-ray oscilloscopes.

Mr. R. F. Carroll, President of New England Container, adds: "Our new urethane foam package design eliminates 12 corrugated pads, a two-piece aluminum canister, two screw-down clamps and rubberized-hair pads—a total of 22 pieces our customer formerly had to handle, assemble and store separately. Last year, we sold 4,000 Hardi-Pak units and we now have orders for ten times that amount. With the fast growth of electronics, we expect our urethane containers to account for an increasing amount of our total annual volume this year, which will make us one of the major suppliers in this new and expanding market."

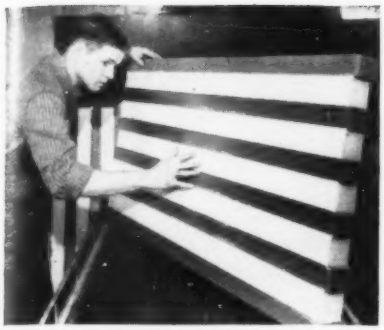
The Hardi-Pak is one example of results achieved through teamwork between package users, package suppliers and urethane foam manufacturers. Write Mobay for other noteworthy examples of urethane foam protective packaging, sources of supply and technical assistance.

MOBAY
CHEMICAL COMPANY
Dept. K-2 • Pittsburgh 34, Pa.

Mobay is the leading supplier of quality chemicals used in the manufacture of both polyether and polyester urethane foams.

MOBAY
First in Urethane Chemistry

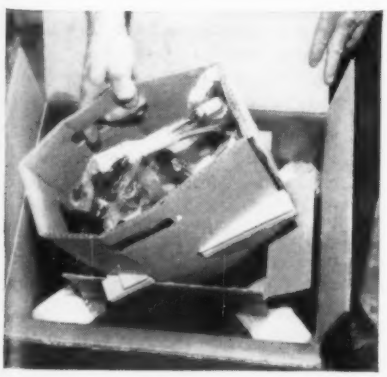
J. Hardigg, designer, E. A. Oles and R. F. Carroll examine urethane foam "shock isolator" principle of award-winning Hardi-Pak.



Alternating urethane foam and corrugated strip sections form basis of shock absorption components.

Urethane foam and paper cores are easily cut with standard band saw.

Shock-mounted inner container is then slipped into outer casing.



Urethane foam gives the proper combination for product protection in shipment and storage.

What you should know about lettering

[*Continued from page 106*]

as well as their specific contours, play a part in the total effect. So does spacing. So do the conditions under which a product is sold. A label for luxury hosiery need not be read from afar; a potato-chip package often is. It's best not to make—or be bound by—any firm rules about legibility. When the design is worked out—with readability in mind, of course—legibility can be quickly and accurately checked. If it hasn't been achieved, another trip to the drawing board can bring it.

Alert packagers today recognize that good package design is a result of the combination of attractiveness with utility. While striving to create a new design having an association of ideas related to the product, the designer must observe how public tastes are running. Since the consumer is becoming more and more sophisticated with regard to design, the expression of lettering and package design cannot afford to resist the trends of popular culture. By carefully overlooking some conventional rules, it is possible to develop new graphic approaches and the work will remain within the boundaries of good design. ●

Glue flap that tucks back

[*Continued from page 84*]

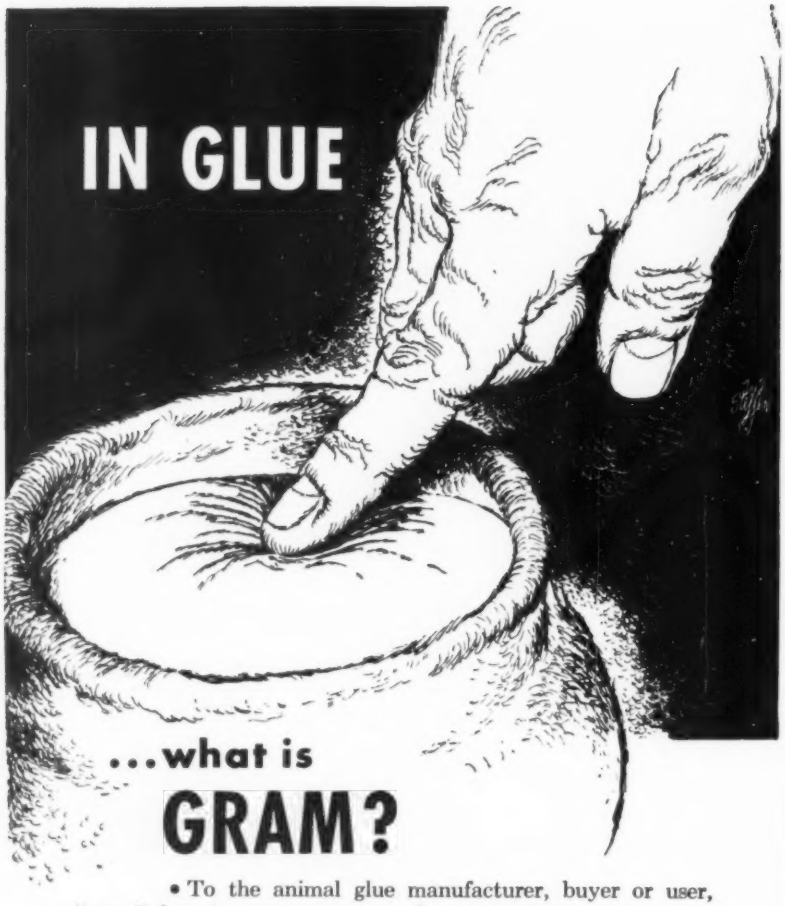
To offset the increased cost of its colorful and more complex container, Durkee is utilizing up-to-date and economical packaging equipment and techniques in its big Bethlehem, Pa., plant, where all 26 spices are packed. The ultra-high-speed carton opening, filling and sealing machine holds the flat cartons in a long, horizontal feed section. Cartons are picked off and opened by a vacuum device, assisted by an air jet, then placed on a continuous belt. Bottom flaps are glued and closed as the cartons travel to the filler.

The filling head has been modified to handle the wide assortment of spices and herbs. Its basic element is a vibrating trough, mounted under twin feed chutes that bring spices from second-floor preparation and storage areas. One chute is standard and handles easy-to-feed spices. The other contains a spiked roller to spread and blend such difficult materials as small red peppers. Vibratory action of the feed trough causes the spices to flow evenly over two spreader plates and finally into filling pockets, mounted on a rotary head, that dump their charges into the cartons, indexed underneath.

The key to close fill control is the second spreader plate, which is suspended from the beam of a conventional over-under scale. A coil surrounds a pencil-like sensing element which is mounted on this beam. Variations in the moving weight over the spreader plate cause the scale beam and sensing element to move—varying the induced current in the coil. These variations are picked up and amplified, and are further translated into voltage changes that speed up or slow down the rate of vibration in the feed trough.

The supplier is now experimenting with a further control for product feed on this machine that involves narrow-range contact points and electro-mechanical adjustment of a potentiometer, which may speed fill corrections for such very hard-to-handle spices as whole cloves. In addition, Durkee engineers will soon switch from link belts, with which the machine is now equipped, to continuous belts that offer less chance of snagging a carton. Also planned is a 90-deg. rotation for each carton as it enters the compression unit, so it will travel front panel first. With this space-saving technique, it is felt that production speeds can be increased to enable the handling of more than 400 cartons per minute.

Once past the filler, the continuously moving cartons are quickly glued and closed in the proper flap order by a series of rotary tuckers and stationary bar plows. A standard cold-resin glue is used on all flaps and the cartons are sealed in a conventional belt compression unit. Finished cartons are automatically assembled by the dozen and machine overwrapped in a natural kraft wrapper, which is pre-printed on all faces with product and brand identification by a conventional im-



...what is

GRAM?

• To the animal glue manufacturer, buyer or user, "*gram*" doesn't mean HOW MUCH. It means HOW STRONG.

It's a measurement of GEL STRENGTH which in turn is an indication of adhesive properties.

In the old days, the strength of a glue was judged by poking a finger into a chilled glue gel. The degree of resistance determined the grade.

Today, modern laboratory apparatus replaces the "finger poking" technique and accurately measures gel strength in terms of weight in grams.

Also, better *production* techniques are now yielding much higher gel strength bone glues.

Within the extended range of grades offered by Darling & Company—

ONE OF THESE 7 SHOULD DO YOUR JOB MOST ECONOMICALLY

GREEN STRIPE	196-220 grams
ORANGE STRIPE	171-195 grams
ORANGE STRIPE	146-170 grams
RED STRIPE	121-145 grams
RED STRIPE	101-120 grams
RED STRIPE	81-100 grams
BLACK STRIPE	30-80 grams

Shipped in 100 lb. multiwall bags.
For prices and technical information see your Darling representative or write

DARLING & COMPANY
GLUE DIVISION
4201 South Ashland Avenue, Chicago 9, Illinois
Animal By-Products Is Our Main Business

DARLING'S improved BONE GLUE

printer. Six bundles are hand loaded in shippers, which are date coded for proper warehouse turnover.

Durkee's package redesign and its reportedly instant sales success prove the value of pioneering a different package when all brands in a field start to look alike. And the new combination tuck-and-glue carton top with its now-proved convenience may well find a variety of uses for other food and non-food products where a hermetic seal must do double duty as a reclosable top.

The increased expense of these packaging innovations has been converted into an actual saving by adoption of high-speed packaging techniques not previously tried with these products—an indication of the flexibility and economy available in fast packaging equipment. ●

Rack packaging

[*Continued from page 89*]

A simple illustration and brief copy printed on the tag clearly indicate the product's usefulness. Tags represent an effective, low-cost solution to the problem of merchandising items that can't be labeled or that are difficult to package.

Bulky items, such as Gustin-Kramer Co.'s Unipad ironing-board cover, pose special problems for attractive display. The product's price—$3.98—is well above average for rack merchandise. Yet this item, packaged in a colorfully printed polyethylene overwrap, has made the supermarket sales grade. Package design gives an impression of high quality, which is fortified by a persuasive list of product advantages printed on front of the overwrap.

It's evident that successful packaging for the supermarket rack approaches the realm of exact science. The fact is that a company can come up with a rack package that to all appearances is a "can't-miss" item, yet—because of inattention to a seemingly minor point—turns out to be a dismal failure. Here is the consensus of the ARMI panel's comments on some of these "minor points":

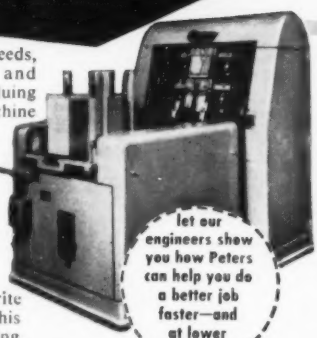
About copy length: Use only as much as you really need; let package illustrations and the product itself do as much of the selling job as possible. If copy is informative and well written, the customer will read it. Use the back of the hang

Peters

Carton & Tray Forming & Gluing or Heat Sealing Machine

automatically converts up to 180 poly-coated or uncoated blanks per minute

At cost-cutting high speeds, Peters SG-P Carton and Tray Forming and Gluing or Heat Sealing Machine automatically converts poly-coated and uncoated blanks into perfectly shaped heat-sealed or glued cartons and trays for packaging frozen foods, cookies, fig bars, crackers and specialty products. Write for catalog describing this and other Peters packaging machines.



Peters

For 60 years originators and builders of high speed automatic packaging and bakery machines.

MACHINERY COMPANY

4712 Ravenswood Ave. • Chicago 40, Ill.
All Phones: LOngbeach 1-9000

ANY LENGTH

Now with

POLYETHYLENE PLUGS

FLEX Containers and Vials

Flex containers and vials are now available in *any* length to accommodate *any* product or *anything*. Flex containers are now also available with smart-looking polyethylene closures.

- 10 stock diameters from $\frac{1}{4}$" to $1\frac{3}{8}$"
- Plain or attractively decorated
- Metal screw closures, metal snap caps, polyethylene plugs
- For hardware, small tools, electronic parts, machine parts, precision parts, notions, many other items

Crystal-clear Flex cellulose acetate containers and vials *insure* good visibility of your product—*increase* its sales appeal and shelf life.

Write today for free samples.

Flex PRODUCTS CORPORATION

2311E MEADOW ROAD (RT. 17) RUTHERFORD, NEW JERSEY

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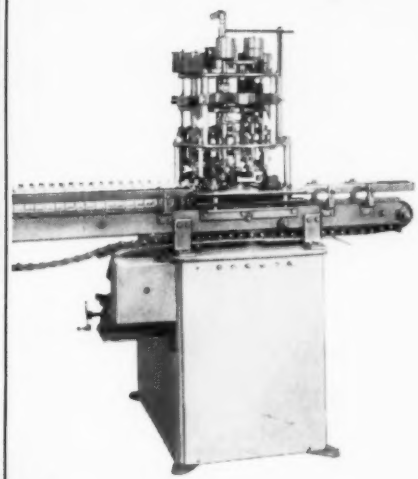
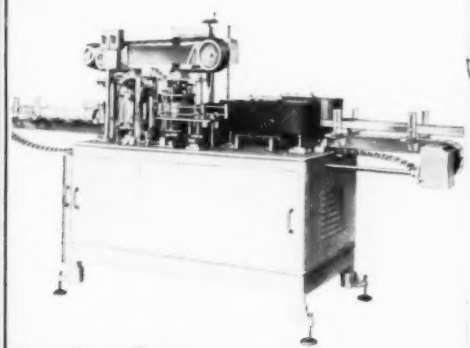
mrm

Automation Packaging!



Fillers

—overhead drive in vacuum, gravity and volumetric types. Models from 8 to 40 spouts handling all types of foamy and still liquids—for glass, metal or plastic containers from fractional ounce to 5 gallons.



Labelers

— continuous motion design for maximum efficiency. Handles all sizes and shapes of single panel labels and containers from fractional ounces to gallons. Production capacities from 40 to 150 per minute.

Write Dept. MP-5 for literature.

mrm COMPANY, INC.

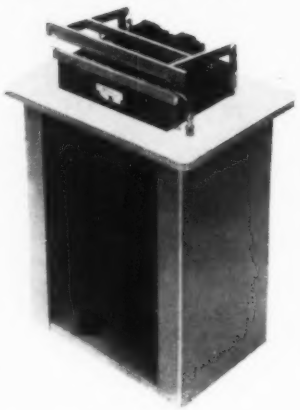
191 Berry Street, Brooklyn 11, N. Y.

Manufacturers of a complete line of fully automatic and semi-automatic liquid filling and labeling equiment

VERTROD

THERMAL IMPULSE HEAT SEALERS

Manufacturers of the most advanced and efficient Thermal Impulse Heat Sealers available. A complete line assures every manufacturer of the exact machine needed for his individual operation. These machines are designed for uniform, positive sealing and trim-sealing without *continuous* heat. They heat instantaneously —no warm-up time required, and will seal all thermo-plastic materials; Polyethelene, pliofilm, Saran, Vinyls, Nylon, Mylar, etc. Vertrod Heat Sealers are fast, need a minimum of maintenance and have maximum built-in safety features. Seals can be made through wrinkles, gussets, liquids and powders. Hand, foot-pedal and electromagnetic or pneumatic power-operated models up to 54" long—special models to fit specifications.



(PATENTS: 2,460,460; 2,509,439; ET AL)

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REPRESENTATIVES IN PRINCIPAL CITIES

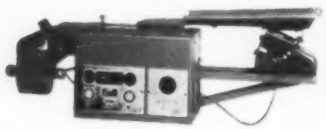
Vertrod Corp.

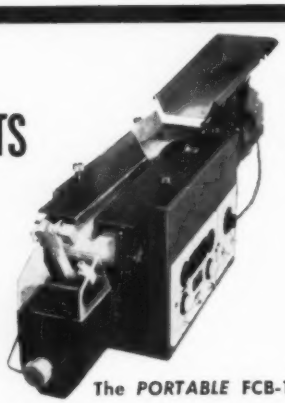
THERMAL IMPULSE HEAT SEALING MACHINERY

2037 Utica Avenue, Brooklyn 34, N. Y.

POST DECITRON ELECTRONIC PRODUCTS

Now . . . low cost . . . accurate "batch" counting for small products.





The *PORTABLE* FCB-1

The Post FCB-1 is a sorting and counting device which incorporates a Syntron vibrator with a Decitron Preset Counter. Model illustrated utilizes a P2 counter, capable of 'batch' counting small objects in any quantity from 1 to 100.

Very small products can be neatly separated on the special conveyor belt . . . individually counted . . . dropped into a 'hold' tray and when the desired count is reached, the entire batch is fed into a waiting box, bag or other container. This latest Post development will feed 300 to 1000 pieces per minute and is **portable!** Size: only 53" long, 18" high, 12" wide. Cost as shown, $3500.

Post will be glad to furnish quotations for models capable of counting larger batches.

Decitron

POST ELECTRONICS

Division of Post Machinery Co. | 165 Elliott St., Beverly, Mass.

card for more detailed instructions if they're needed. Don't use type face that is too small. Many women who wear glasses don't use them while shopping, so if she can't read your message, the sale is lost.

About package color: Colors should be bright enough to capture attention without being harsh. They should complement the product color. Also, try to tie in package color with the product's end use—such as yellow for corn-on-the-cob holders. Poor printing, incorrect register, too many colors or an unfortunate choice of colors trigger an unfavorable product image.

About pre-pricing: Put price where the shopper can see it and include the words "plus sales tax where applicable" so she'll be aware of the added cost. Be sure to price mark in blue or black ink, because these colors indicate "grocery-department item" to the clerk ringing up sales at the check-out counter. Don't use red or green price marks, which denote meat and produce items. Such careful attention to price-mark color can prevent a lot of confusion and make your package more welcome.

About general package design: By all means use a qualified designer, preferably a specialist in your product line. Non-specialists can't be familiar with the characteristics and needs of all product fields.

About hang-up holes: They should measure at least 5/16 in. in diameter. Though smaller holes may suffice for some hang-up items, they slow the work of rack servicemen. When small-hole headers must be forced on the peg, they may become torn and mutilated, resulting in an unsalable package. Holes should also be placed at least 1/4 in. from the edge of the card to prevent tear-outs. If your package will stand up as well as hang, so much better.

On the question of when to change the package, the ARMI panel members point out that in the rack-selling field, change and newness are vitally important. Although some manufacturers have kept the same package for years and are still doing fine, customers are always on the lookout for something new. The best advice, they say, is to change your package whenever you feel a new package would do a better job. But don't change your package just for the sake of change, without making a genuine improvement. ●

As for progress, the most brilliant achievement of the corrugated-container industry in recent years has been its transformation of the shipping box from a drab, utilitarian container into a colorful, well-designed aid to modern merchandising and advertising. This has been done through improved printing surfaces, improved printing processes and a general campaign to make packagers conscious of the merchandising power of the shipping container. Today, the corrugated container plays a dual role.

QUOTED FROM
MODERN PACKAGING
OCTOBER 1958

TALK ABOUT PROGRESS IN SHIPPING CONTAINERS ...LEADS RIGHT TO ST. REGIS SEMINOLE

Like the editors of Modern Packaging, we realize that the corrugated container today is more than just a vehicle to ship and protect your product. It's become a vehicle for identification, advertising and merchandising.

To meet this need, we created St. Regis Seminole—the ultimate in linerboard for both protection and printability. This strong, superior kraft, with its smoother, uniform surface and light color, gives new contrast and crispness to your brand name and selling message. Even detailed trademarks register clearly.

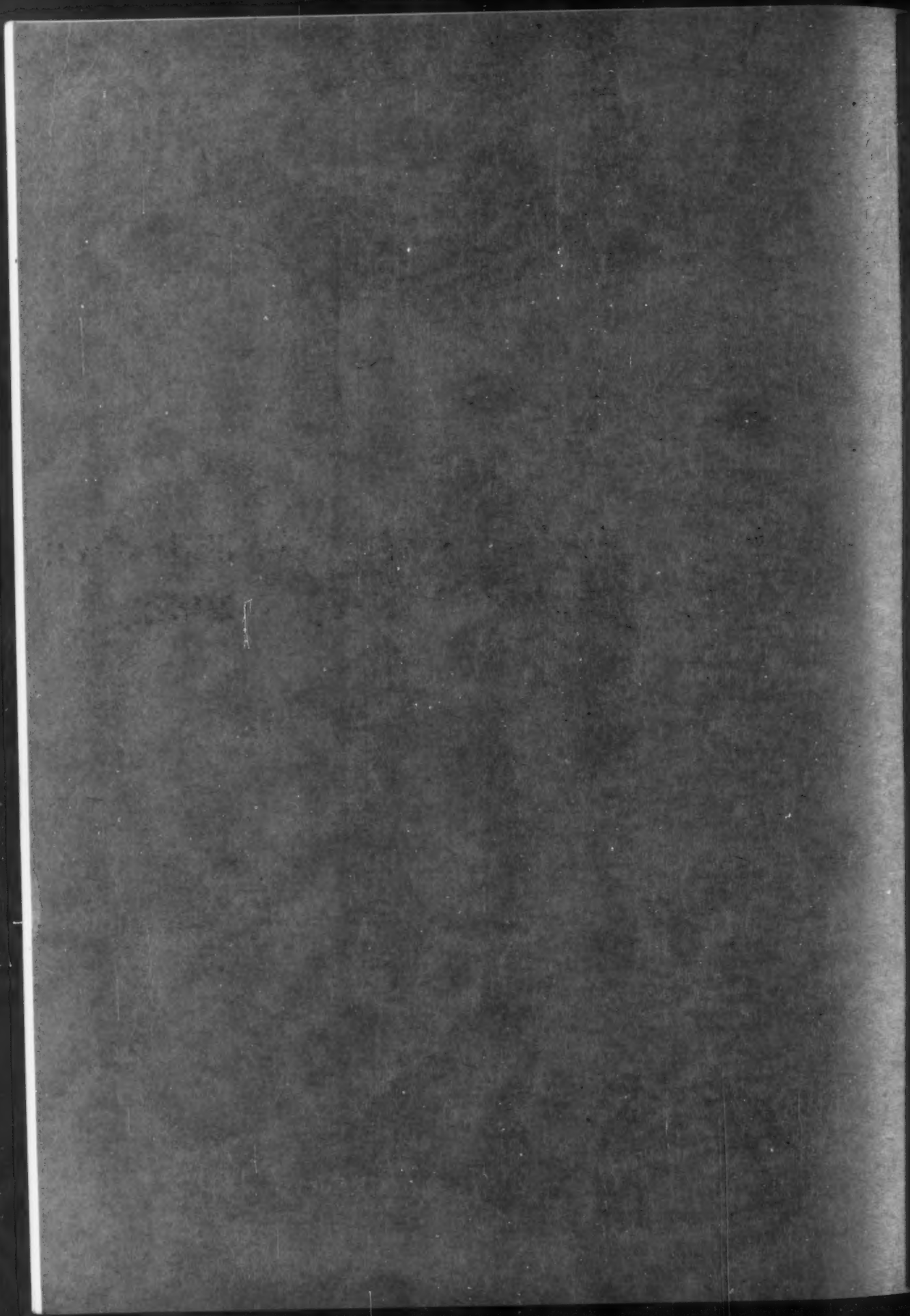
Make this new standard of quality part of your packaging program. When you talk to your boxmaker, specify St. Regis Seminole!

This insert is printed on 42# St. Regis Seminole

St. Regis PAPER COMPANY

150 EAST 42nd STREET, NEW YORK 17, N.Y.

Sales Offices: NEW YORK · E. PEPPERELL (MASS.) · ATLANTA · PENSACOLA · CHICAGO · CINCINNATI · SAN FRANCISCO · LOS ANGELES · TACOMA



Stretchable paper to be manufactured in Europe

Stretchable paper will soon enter the European market as the result of the signing of a license agreement between Clupak, Inc., New York, owners of patents for manufacturing the paper (see "Enter Stretchable Paper," MODERN PACKAGING, March, 1958, p. 161) and Kynas Aktliebolag, a leading producer of kraft paper in Sweden.

The Dynas firm, according to Gerald E. Amerman, president of Clupak, will install an extensible-papermaking unit on a new 205-in.-wide kraft paper machine at its Vaja mill in Sweden. Production is scheduled to start in September of this year.

Outside of the United States, Sweden is the largest producer of coarse papers in the world. More than 60% of its paper production is exported to Great Britain and West Germany, France, Belgium and the Netherlands. Stretchable "Clupak" paper from the new Dynas unit will be sold to paper converters throughout Europe. It will make its initial appearance in the form of heavy-duty multiwall sacks, grocery bags, the outer shells of paperboard containers, industrial wrappings and other familiar kraft-paper end uses.

At the present time, a total of nine United States paper companies and two Canadian firms have been licensed by Clupak to utilize its patented process for the manufacture of stretchable paper. ●

LPNA winners cited for exceptional quality

Certificates of Award were presented to 286 producers and creators of outstanding specimens of offset lithography in the recent 9th Lithographic Awards Competition & Exhibit, sponsored annually by the Lithographers & Printers National Assn.

At the Awards Dinner, held last month during LPNA's 54th annual convention at The Greenbrier in White Sulphur Springs, the 2,584 specimens entered in the 1959 competition were praised for their "exceptional quality" and were characterized as "a tribute to the craftsmanship and originality of both the producer and the creator." The 48 classifications of lithography in which awards were made ranged from direct mail and sales-service literature to point-of-purchase displays and packaging materials. Judges pointed out that the winners symbolized the far-reaching strides lithography is making as a major merchandising, marketing and selling arm of American industry. They stated that the artwork manifest in the packaging materials—labels, cartons and wrappers—was extremely impressive.

The prize-winning pieces will be displayed May 5-7 at the Hamilton Hotel in Chicago and June 9-12 at the Warwick Hotel, New York. Throughout the year, the Awards Exhibit will be displayed in other principal cities of the nation.

Following are the award winners in the packaging field:

Labels—Speas apple juice, Speas Co., by Stecher-Traung Lithograph Corp.; Tomato Universal, Fairview Packing Co., by U. S. Printing & Lithograph Co.; H-C Punch, Minute Maid Corp., by H. S. Crocker Co.; Wear-Ever coordinated line, Wear-Ever Aluminum, Inc., by Philipp Lithographing Co.; Old Hermitage, National Distillers & Chemical Corp., by Consolidated Lithographing Corp.; C. K. Mondavi, Charles Krug Winery, by Stecher-Traung Lithograph Corp.

Wrappers—Hostess and Decorative ensembles, Barth & Dreyfuss, by H. S. Crocker Co.; Protein Plus, General Mills, by Harrison & Smith Co.; Barricini candy box, Barricini, Inc., by Consolidated Lithographing Corp.; Woodbury dusting powder, Andrew Jergens Co., by Nielsen Lithograph Co.; Carol Stuart Home-Style Favorites, Loft Candy Co., by Smith & Edwards Co.

Cartons—Sanalac New Instant Nonfat Dry Milk, Sanna Dairies, by Milprint, Inc.; Saylor's-Happy Easter, Miss Saylor's Chocolates, Inc., by H. S. Crocker Co.; Disneyland Candy Palace, Candy Palace Disneyland, by H. S. Crocker Co.; Beech-Nut toy blocks, Beech-Nut Life Saver Corp., by Container Corp. of America; Four Roses Antique-Kentucky Straight Bourbon Whiskey, Four Roses Distillers Co., by Lord Baltimore Press; Winston, R. J. Reynolds Tobacco Co., by Diamond Gardner Corp.

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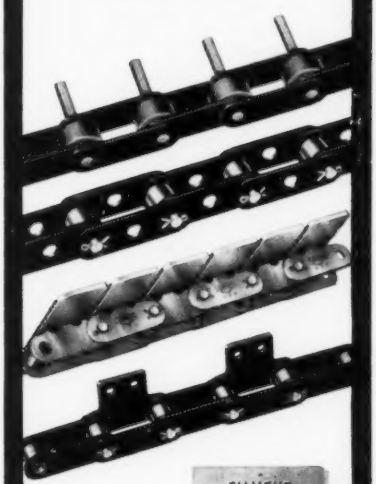

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ords, by Photopress; Archer hosiery inserts, Archer Hosiery Mill, by Commercial Printers; Tchaikovsky, Westminster Records, by Lithographic Corp. of America; proof envelope, D. F. Keller Co., by D. F. Keller Co.; Gerry Mulligan Quartet, World Pacific Records, by Western Lithograph Co.; Exotica, Liberty Records, by Western Lithograph Co.; playing-card gift box, U. S. Printing & Lithograph Co., by U. S. Printing & Lithograph Co.; Honey-Krust bun wrap, Grocers Baking Co., by Nielsen Lithograph Co.; Heileman's Old Style, G. Heileman Brewing Co., by U. S. Printing & Lithograph Co.; Magicare Trio cosmetics, Mytinger & Casselberry, by Graphic Press, Inc.; Pink Camay soap, Procter & Gamble Co., by Nielsen Lithograph Co.; Parisian gift carton, Charles Jacquin et Cie, by Diamond Press.

Metal Lithography—Bisquick canister, General Mills, by J. L. Clark Mfg. Co.; Pfeiffer beer cans, Pfeiffer Brewing Co., by American Can Co. and Continental Can Co. ●

Antioxidant effect

[*Continued from page 113*]

supplying the carton blanks used in this study and to Dr. Ben Stuckey of Eastman Chemical Products, Inc., Kingsport, Tenn., for helpful suggestions concerning the use of antioxidants.

References

1. Anonymous, Antioxidant Food Board, MODERN PACKAGING *29*, (5) 118-119, 202, 204 (1956).

2. Bentz, R. W., Antioxidants for Food Papers, MODERN PACKAGING *27*, (1) 141-145 (1953).

3. Doyle, M. E., Sullivan, R. D., and Booth, H. G., Use of Antioxidant in Paperboard, MODERN PACKAGING *29*, (11) 119-123, 195 (1956).

4. Gearhart, W. M., and Stuckey, B. N., A Comparison of Commercially Used Phenolic Antioxidants in Edible Animal Fats, *J. Am. Oil Chem. Soc. 32*, 386-390 (1955).

5. Peryam, D. R., and Girardot, N. F., Advanced Taste-Test Method, *Food Eng. 24*, (7) 58-61, 194 (1952).

6. Stuckey, B. N., Increasing Shelf Life of Cereals With Phenolic Antioxidants, *Food Technol. 9*, 585-587 (1955).

7. Thompson, J. B., and Kocher, R. B., Trace Metals in Food Packaging, MODERN PACKAGING *23*, (9) 119-122 (1950). ●

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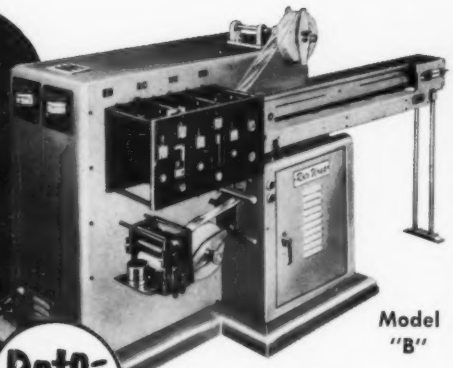

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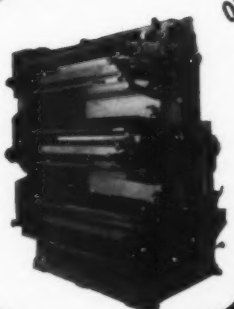

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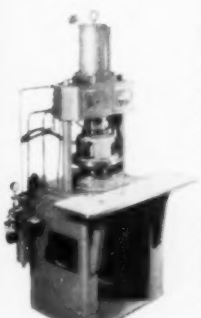

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News on frozen-food packaging

In a session devoted to the application of new developments in frozen-food packaging, at the recent National Assn. of Frozen Food Packers convention, interest centered on four specific subjects: the status of aluminum, boil-in-the-bag packages, cartons and overwraps, and polyethylene bags.

Aluminum. The development of aluminum packaging, it was disclosed, has paralleled the rise of the frozen-food industry. Epoxy resins are said to be giving good results for outer coatings on aluminum containers for frozen foods, although they cannot be used in contact with food. Anodizing—for color and protective finish—is growing in use, but is not yet economical for thin-gauge foil. Pies are being marketed in Los Angeles in an all-aluminum container without an outer carton and this trend should grow, it was stated. In-plant fabrication of aluminum containers is still not a big factor, since it does not yet provide sufficient savings. While most food processors don't want to be metal stampers, they would benefit theoretically in making a steady flow of the same-sized containers. It was agreed that the era of the aluminum can is rapidly approaching as aluminum becomes competitive in price with steel.

Boil-in-the-bag packages. Panel members outlined the advantages and disadvantages of various materials used for boil-in-the-bag packages. They predict that unmounted foil will probably eventually take up most of this market. Boil-in-bag packages involve problems for machinery manufacturers, since cartoning equipment cannot handle pouch packages efficiently. Several equipment suppliers were reported to be working on cartoning machines that will spatula load the pouches. From the processor's standpoint, there is a great need for efficient packaging machinery that will offer speed of production to offset higher material cost.

Cartons and overwraps. It was generally conceded that waxed overwraps give better WVT protection than printed cartons. Also, overwraps afford the processor more flexibility, since the same cartons can be used for different products. Printed cartons create a problem of excessive inventory with companies having a wide line of items. Shipping overwraps from plant to plant also is less expensive than shipping of the cartons, it was pointed out. Products which need a high degree of water-vapor protection must have specialized board for printed cartons, which is often more expensive than the overwrap. Printed cartons are generally cheaper for small product lines, it was stated. Food processors reported that the Swedish Expresso package is being carefully studied. Main objections seem to be that the system takes up an undue amount of floor space and also requires exceptional accuracy.

Polyethylene bags. All panel members agreed that there will be a big boom in the use of polyethylene bags by frozen-food processors, especially for frozen vegetables. ●

Effect of wraps on frozen beef

[*Continued from page 116*]

this study suggest that there is not necessarily any consistent relationship between palatability of ground beef stored at 0 deg. F. (minus 17.8 deg. C.) and rate of permeability to water vapor of the packaging material. The data also indicate that a ½-mil coating of polyethylene was adequate to prevent any appreciable moisture loss, under the conditions of this experiment.

Significant differences in palatability were found at 0 deg. F. only at the 7½-month storage period, which indicates that the storage period may be an important factor in the evaluation of packaging materials. Differences were not noticeable at the first judging period while the palatability of all samples remained good and they were not apparent after palatability had decreased to a relatively low level at the conclusion of the 10-month period.

Summary

Palatability scores for ground beef stored at 0 deg. F. (minus 17.8 deg. C.) for 7½ months in two modified and two unmodified polyethylene-coated papers were lower than those for comparable samples stored in

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0.0015-in. aluminum locker foil, the differences being statistically significant except in one instance. No significant differences were found at 5½ months or at 10 months after the palatability of all samples had decreased to a relatively low level.

The treatment of the polyethylene-coated paper with a 5% antioxidant compound had no significant effect on the palatability of packaged ground beef stored for 5½, 7½ and 10 months.

No material changes in weight occurred during storage periods up to 10 months, indicating that a ½-mil coating of polyethylene was adequate to prevent any appreciable loss of moisture.

Acknowledgments

The authors are indebted to Mrs. Joanne G. Kvasnicka and Mrs. Rebecca W. Walch for assisting in the processing operation and in the taste-panel appraisals. Thanks are due Mr. Richard Matsuura for the statistical analysis and the Poultry Husbandry Department, University of Minnesota, for the storage facilities.

References

1. Emerson, C., Brady, D. E., and Tucker, L. N., The Effect of Certain Packaging and Storage Treatments on the Acceptability of Frozen Beef, Missouri Agr. Expt. Sta., Res. B. 470 (1951).

2. McCoy, D. C., Cook, S. V., and Hayner, G. A., Study of Frozen Food Wrapping Materials, *Food Freezing 2*, 69-72, 93, 101 (1946).

3. Simpson, Jean L., and Chang, Irene C. L., Effect of Low Freezer Storage Temperature and Wrapping Material on the Quality of Frozen Meat, *Food Technol. 8*, 246-252 (1954).

4. Winter, J. D., and Hustrulid, A., Flavor Factors in Frozen-Food Wraps, Modern Packaging *24*(9), 133-37, 184, 186 (1951).

5. Winter, J. D., and Trantanella, Shirley, Effect of Packaging on Palatability and Weight Loss of Frozen Pork and Beef, *Food Technol. 13*, 165-169 (1959).

6. Winter, J. D., and Trantanella, Shirley, Packaging Effects on Frozen Fish Palatability are Studied by Minnesota Researchers, *Quick Frozen Foods 20*(12), 81-83, 159 (1958).

7. Winter, J. D., Trantanella, Shirley, and Aunan, W. J., Effect of Three Types of Locker Papers on the Palatability of Frozen Ground Beef, *Freezer Provisioning 12*(12), 10-11 (1958). ●

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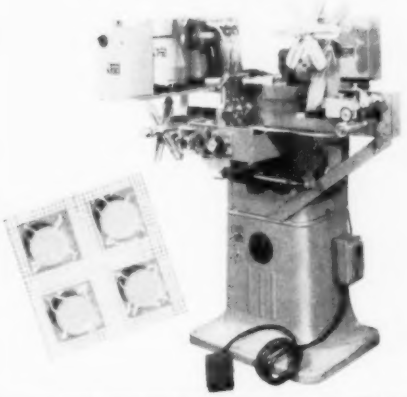

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where four different clothing items packaged for the first time in sealed, round, opaque rigid paper containers reportedly substantially outsold similar articles in conventional transparent packages.

The test involved canned brassieres, panties, children's briefs and bobby socks sold along with the same items in flat transparent packages given equal space in non-food sections of the supermarket.

The canned soft goods outsold others by better than two to one in terms of dollar volume and units of clothing, accounting for 67% of all dollar sales of the four clothing items and 70.8% of unit sales, according to Donald Poinier of Canco's product marketing division. And the canned articles, apparently, led to increased sales on a dollar basis, registering sales 30% above the normal for the test items in other types of packaging. Brassieres accounted for 40% of the combined dollar sales of all items in either package.

The 5-in.-high, convolute paper containers can be warehoused, distributed, price marked, stacked and sold in accordance with normal supermarket procedures, says Mr. Poinier, and they reduce losses due to opening and pilferage. ●

Multiwall super-barrier

[*Continued from page 81*]

speed, theoretically, for the unit as now designed is 12 bags a minute.

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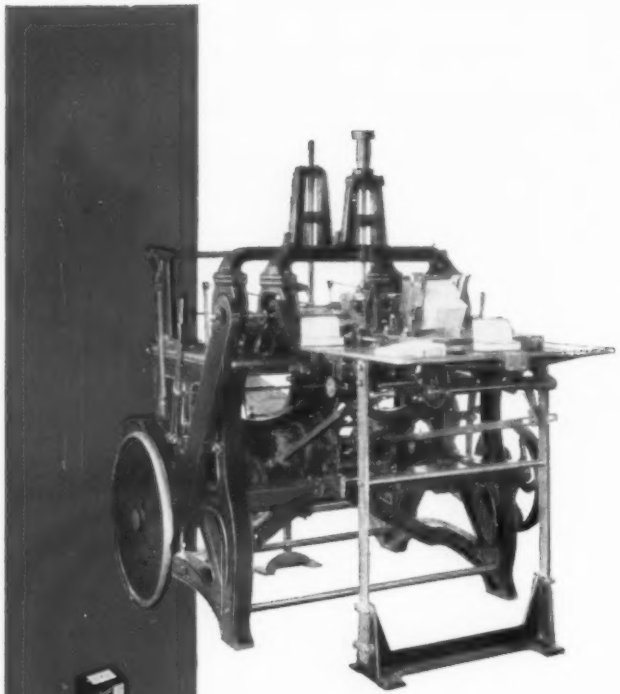

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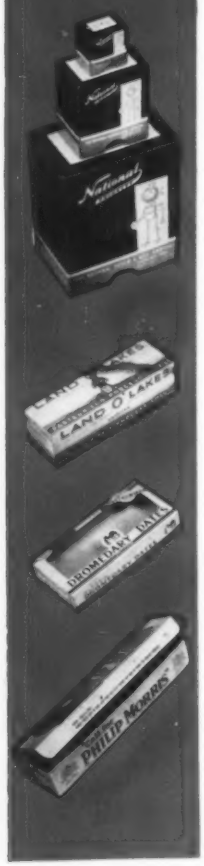

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landing on a belt conveyor that runs the full length of the unit. Side rollers on the machine eliminate sliding friction and hold the bag in correct position for sealing. An automatic "jogger" is being developed to settle the bag contents, the only operation now performed by hand. From this point on everything is automatic.

First, the operator presses a button, which initiates machine action and closes a pair of broad jaws on the top portion of the bag to squeeze out air and align the stepped mouth. Then the bag is pulled to the heat sealer. Here, spring-loaded sealing jaws close on the bag, exerting 300 lbs. pressure for 5 sec. at about 325 deg. F. The rear jaw must drive heat through the outer paper laminations, but the front jaw is in direct contact with the foil-polyethylene lamination. The cycle is determined by the pressure, time and temperature needed to effect a complete seal in the bulky center portion of the bag where the longitudinal seal is located. A the same time, a blunt knife applies a score line about 1 in. below the heat seal to facilitate folding at the final station. At the end of the timed sealing period, the jaws release slightly, enabling the bag to remain indefinitely in the sealing station without overheating. Normally, however, the container passes on immediately and trips an electrical switch initiating the feed mechanism for the paper tape.

At this point, too, the top of the bag is bent at a 90-deg. angle by a hook-and-plow mechanism and glue is applied from a roller to the under side of the resultant flap. The paper tape, drawn from a roll, is moistened in transit by water rolls and fed along the top, outer edge of the flap. At the final station, a compression arm folds this flap down against the body of the bag, where it is held by both glue and tape. Small ears of tape which project from either side of the bag are hand folded around the rear of the container to insure complete integrity of the tape seal.

Because of the packaging weights handled by this machine and the continuous strain on many of the components, its construction is rugged and the drive functions are split among four explosionprooof gearhead motors. One motor drives the main conveyor, which pulls the bags through the machine. A larger motor

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Packaging Notes

Easy opening feature for poly packaging is a "DACRON" cord set into the film. The feature is available for any type of polyethylene extrusion lamination, in both roll or pouch form. The cord can be imbedded in the surface of the poly coating, or placed between the poly coating and the material to which the polyethylene is applied. Pouches can also be fabricated with the cord sealed into the side seals of the pouch. The cord feature is said to be especially suited to packages for cheese, meat, all kinds of dry products, cocoa powders, drink mixes and heat-in-the-pouch items.

Carrots are being marketed in full color, gravure printed poly bags. Appetizing illustrations appear on the face of the bags, along with smaller vignettes and recipes on the back. The bags are said to be the first in the produce field to be printed horizontally.

Universal polyethylene drum is designed to nest inside standard 15 gallon steel or fiber drums. The polyethylene container holds a full 15 gallons and is available with a variety of closures, from standard pipe or buttress threads to external cap closures.

The new drum nests and locks when stacked, needs no pallets. The poly drum is light in weight, unbreakable and carries low freight rates.

A dozen small pockets heat-sealed from a single sheet of polyethylene form a hanging point-of-purchase merchandiser for phonograph needles. The pockets, heat-sealed on three sides, are open at the top for easy removal of the packaged needles. The pocketed polyethylene sheet is stapled to a printed hang card. As the merchandise is sold, the pockets can be restocked. The display is especially suitable for small products that might otherwise be lost or subject to pilferage.

New packaging machine is said to be able to overwrap up to 75 boxes per minute with polyethylene. The machine can also feed, cut and seal a variety of packaging materials. It can handle units three to eight inches wide and a half inch high. Special machine design is necessary for five to nine inch widths. The machine accommodates packages 4¾ to 12½ inches long.

New U.S.I. Polyethylene Plant on Stream: Capacity 75,000,000 lbs. per Year

Plans Already Underway To Double Capacity

A second plant to produce U.S.I. PETROTHENE polyethylene has just gone on stream in Houston, Texas. Capacity of the plant — 75,000,000 pounds per year of low and intermediate density polyethylene resins — increases U.S.I.'s polyethylene production capacity to 175,000,000 pounds per year. The company's other plant, at Tuscola, Ill., now has a 100,000,000-pound-per-year capacity.

Immediate Expansion planned

Along with the announcement that the plant was in operation, U.S.I. also made public plans to double the capacity of the plant by the end of 1960. This would bring the company's PETROTHENE production in the Houston area to a total of 150,000,000 pounds of polyethylene.

The location of the new plant is especially well suited for improved customer service. The Houston Ship Canal permits shipment by barge. All other means of transportation are readily available. Export shipments will be expedited through use of the extensive port facilities in Houston.

The staff for the Houston plant includes Byron J. Anderson, Plant Manager; Eugene C. Carlson, Technical Superintendent; T. Howard Dantzler, Superintendent of Operations; and E. P. Richards, Chief Engineer.

Wide Range of Resins Available

The new plant, which is already shipping commercial quantities, was rushed to completion some six to eight weeks ahead of schedule when demand for U.S.I. PETROTHENE resins began to outrun supply late in 1958. The plant uses a modification of the conventional high-pressure process already proved in the Tuscola plant. Low density (.915-.924) as well as intermediate density resins (.925-.929) are being produced. These are the polyethylene materials commonly marketed as packaging film, garment bags, squeeze bottles, wire and cable coatings and housewares.

In all, PETROTHENE polyethylenes are available in some 70 different resins, each varying in melt index, density, strength, clarity, gloss, slip, stiffness, and other properties. This wide range of resin properties is a result of U.S.I.'s program of tailor-making resins to meet specific molding and extrusion requirements.

New Expansion Will Make U.S.I. 2nd Biggest Producer

When the current expansion program is completed late in 1960, U.S.I. will become the country's second largest producer of polyethylene resins. The new capacity will raise total production of PETROTHENE resins to 250 million pounds.

U.S.I.'s growth in the polyethylene field has been spectacular. Starting with a production capacity of 26 million pounds in 1955, the company will have realized a 900% increase in production when the expanded facilities go on stream.

Along with this growth has gone technical leadership in the field of polyethylene processing, particularly in packaging film. Recently, U.S.I. pioneered a new technique for producing crystal-clear cast poly film that is finding extensive application in large volume overwrap and bread wrap markets. While U.S.I. has specialized in low and medium density resins, it has done extensive research work on a new process for making high density polyethylene. The process is said to be superior to any now in use. U.S.I. also has studied the polypropylenes and other polyolefin copolymers in pilot plant operations.

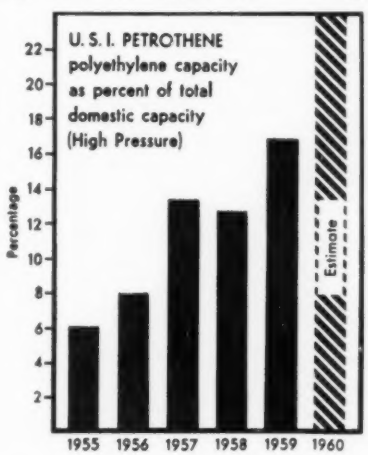
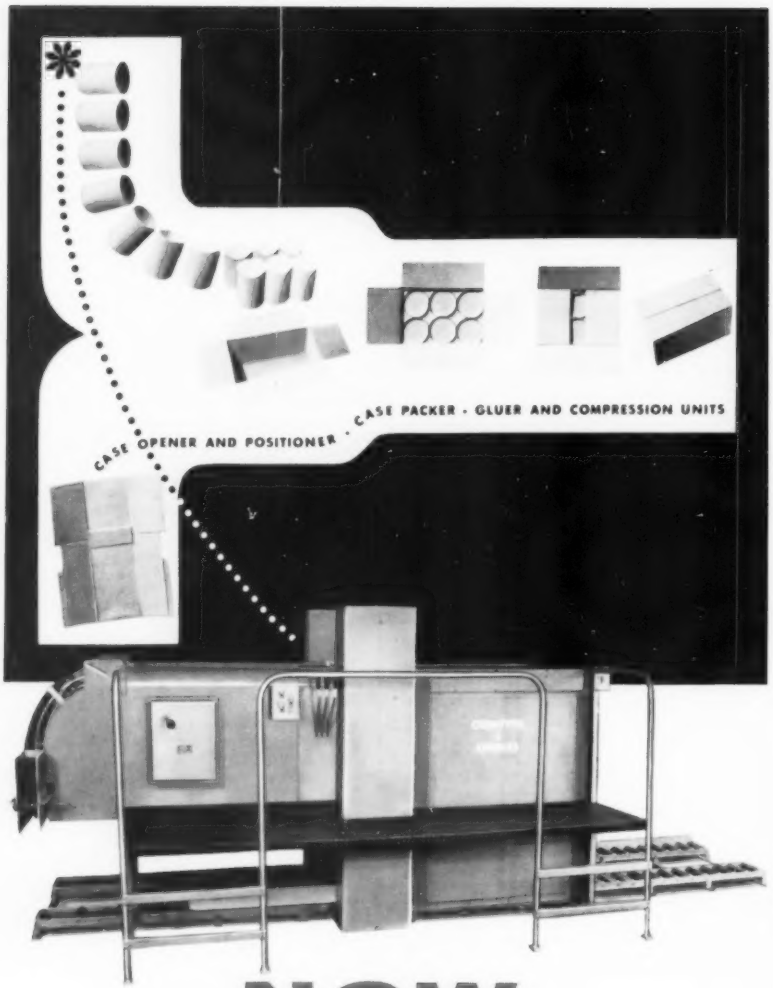


Chart shows spectacular growth of U.S.I. in polyethylene field. Starting as a non-producer less than four years ago, U.S.I. will produce almost one fourth of total U. S. high pressure polyethylene by 1960.

DO YOU HAVE a new polyethylene packaging development you'd like the industry to know about? Make it routine to send your information on new developments to U.S.I. POLYETHYLENE NEWS.

Address the Editor,
U.S.I. POLYETHYLENE NEWS, U. S. Industrial Chemicals Co., Division of National Distillers and Chemical Corp., 99 Park Avenue, New York 16, N.Y.



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operates the main cam, which activates the air-squeezing arms, heat sealer and the folder-compression unit. A small motor-and-chain drive operates the glue and water rollers and the live back-up roller for the tape feed. The fourth motor actuates the main tape-feed nip rollers and the tape-cutter bar.

All timing of the machine is adjusted on the single cam that controls the main belt. The air-squeezing and folding-compression arms are linked for positive opening and negative closing. In other words, they close under spring tension alone —which minimizes chances of injury should an operator's hand get caught in the jaws.

While this container is highly suited to its present application, the supplier is conducting extensive tests to determine by how much the polyethylene coating and foil liner can be reduced and still provide adequate protection for many moisture-sensitive products that could benefit from the practicality of this flexible bulk package. Presumably, these lighter bags would be less expensive—a possibility that would open new areas of industrial packaging for multiwall containers. ●

Crisis: new food law

[*Continued from page 78*]

Arnold J. Lehman, director of F&DA's Pharmacology Division.

It is this viewpoint that recently led a prominent consulting toxicologist to declare acidly that the new law seems to lay greater stress on the development of exquisitely fine analytical techniques than it does on the safety of the material under examination.

Once identified, the amount of migrating chemical must be accurately measured. And if a packager questions the amount of extractables produced by the "quickie" chemical tests, he has the option of performing the longer storage tests to determine just how much of a migrant chemical actually transfers to the food. However, Commissioner Harvey declares that packagers should not be concerned by high extraction values, since F&DA reportedly intends to "fairly evaluate these figures with allowance for the methods by which they were obtained."

Only after all this chemical information is obtained can the suspect

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chemicals be examined for safety. If F&DA has previous information proving that the migrating compounds are safe or that they can be tolerated in already-determined amounts, a regulation on the packaging material can be set up without further work.

It should be noted here, though, that "safe" application of packaging materials is a very specific matter, according to F&DA officials. For example, a polyethylene package approved for fruits or some other water-based product is not necessarily approved for meats or other greasy foods—unless the packager has submitted specific data to show what chemicals are extracted under both product conditions. Also, regulations that approve use of one type of cellophane for a certain food, for instance, do not necessarily apply to other types of cellophane—or, in fact, the same type of cellophane produced by different manufacturers, since manufacturing methods and ingredients may not be the same.

Food & Drug officials are optimistic on these points and believe that many packaging materials will win clearances without extensive testing, though they admit to little knowledge about the chemical makeup and migratory properties of packaging materials. Food industry experts claim that such "easy" cases will be rare and they take a very pessimistic view of the amount of testing which they claim lies before them.

One thing is sure: If there is any doubt about the physiological effect of a migrant, the packager or his supplier must embark on a "two-year" animal-feeding test. This procedure is really a series of tests and is not quite correctly named, since the full series generally averages closer to three years to complete. Such a test is the only way to identify not only toxicity, but carcinogenic activity.

The first test is for acute toxicity —adverse effects produced by a chemical on the test animals in a 24-hr. period. Next comes a longer feeding test for sub-acute toxicity, designed to reveal functional or anatomical changes in the test animals over periods of up to six months. Chronic-toxicity tests follow and are carried on for two years to prove fully that ingestion of small amounts of a chemical over long periods of time produce no adverse physiological effects. While the tests naturally overlap, some time is lost in selecting animals and in examining and collating the results. Sponsors are loath to run all tests simultaneously because of the chance that trouble will develop in one of the short-range experiments.

Since adverse results anywhere along the line immediately rule out the chemical in question, the peculiarity of this system is that the "safer" the packaging material, the longer it may have to be tested and the more it may cost in time and money to satisfy the requirements.

Commenting on this point, a leading industrial expert in toxicology complained recently that there are two dangers in testing packaging materials for safety: (1) the danger of approving an unsafe material and (2) the danger of not approving a safe material. F&DA, he thinks, concerns itself only with the former. And because the cost of developing packaging materials today is high, he fears that this official attitude may slow down industry's willingness to invest in research on radically new forms of packaging—particularly in the fields of polymers.

The petition

Once the preliminary chemical and physiological data have been assembled—with or without informal discussions with the agency—the packager or supplier is ready to present his case to F&DA. This is done in the form of a petition which includes such information as the use history of the chemical migrant; its source, composition and stability; proposed method and quantity of use and any other pertinent manufacturing data; procedures for control, and details of the animal-feeding tests conducted to prove its safety.

If all the facts are in order, the agency "files" notice of this petition in the *Federal Register* and then has 90 days to examine the data closely and issue a regulation concerning the material. This period can be extended another 90 days if necessary.

As a result of this scrutiny, F&DA then publishes a regulation on the packaging material which can: (1) permit unlimited use of the material, (2) restrict the use of the material in amount or to certain foods, or (3) ban use of the material altogether.

The petitioner can file an objection to this ruling, of course. So can

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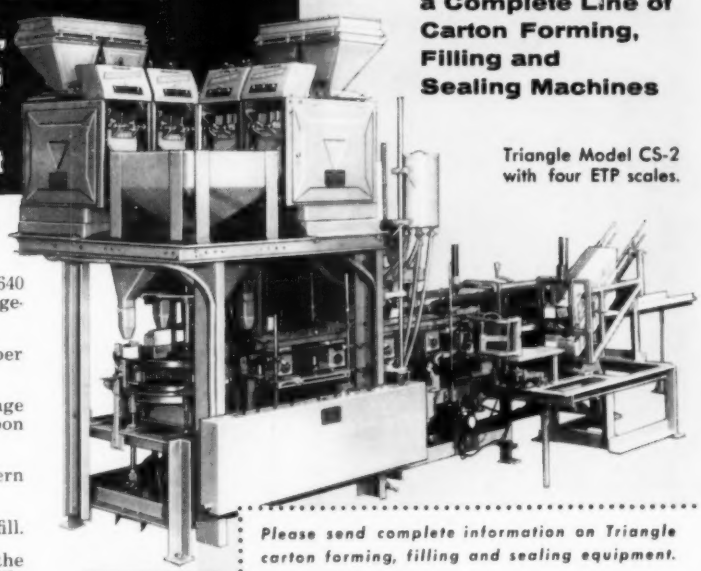

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any other party that claims to be adversely affected by the ruling. The objections must be filed within 30 days. If F&DA and the objector cannot iron out their differences, the petitioner can request a public hearing, again within 30 days. On the basis of evidence heard, the F&DA Commissioner will issue a new ruling. The petitioner then has 60 days to carry the matter to the U. S. Court of Appeals, with final appeal to the Supreme Court.

One big catch in this system of public and judicial redress is the matter of trade secrets. The packager or supplier often may have to include a great deal of secret manufacturing information in his original petition to satisfy F&DA's demand for chemical identification and use. The agency guarantees to keep this confidential—up to the point of a public hearing. Thus, aggrieved manufacturers seeking to change an adverse decision must balance their chances of successful appeal against the equal chance of losing their competitive advantage. Manufacturers and packagers who have had this experience under similar provisions of the 1938 new-drug amendment say that—for the above reason—appeals are undesirable. They also believe that judges, who are not pharmacologists, are inclined to be extremely conservative and will rarely go against F&DA opinion.

Also in this area is the subject of agreement by "qualified experts" that a packaging material is safe. When questioned as to who qualifies, Deputy Commissioner Harvey indicated that pharmacologists and biochemists, trained in food work, will be given primary attention. However, anyone can send comments on a proposed regulation to F&DA. It is up to the agency to decide whether such comment comes from a qualified source. Commissioner Harvey also is firm in his view that if one of F&DA's experts disagrees with opinions of industrial researchers on the subject of whether a packaging material is generally recognized as safe, the F&DA opinion will prevail.

Such are the main legal and technical points in the new law. Of necessity, only the high points have been touched in this article. Packagers interested in specific details on chemical and toxic tests should get the comprehensive booklet, "Appraisal of the Safety of Chemicals in Foods, Drugs and Cosmetics," published by the Assn. of Food & Drug Officials of the U. S., written by Dr. Lehman and his associates.

From the points noted here, however, it is obvious that, despite F&DA's optimistic attitude, there is a tremendous amount of testing and legal clearance to be effected in an incredibly short time. Despite cooperation by this regulatory agency, the burden of work will fall on the packager and his suppliers.

Some ideas on how much this will cost the packaging field, who will do the work and when it will be accomplished will be the subjects of a second article in these pages. ●

Packaging Institute discusses food law

Controversial points in the new Food Additives Amendment were brought into sharp focus when packagers and suppliers recently met officials of the Food & Drug Administration at a series of meetings sponsored by the Packaging Institute. The three conferences—held in New York on March 3, Chicago on March 26 and Los Angeles on April 6—were the first concerted attempts by the packaging field to get light on the many confusing and restrictive provisions of the law, which requires industry to clear its new packaging materials before they are put on the market.

Prime point brought out by Food & Drug men was that there is no "grandfather clause" in the regulation—hence no existing packaging materials are exempt from investigation to find out whether they contain a migrating chemical and whether this chemical is possibly harmful to consumers. Even cellophanes have not yet been cleared, according to Dr. Arnold J. Lehman, chief of FDA's Pharmacology Division. And polyethylene films are not accepted for grease- or oil-based foods.

Questions put to a round-table panel of Government and industry spokesmen gave evidence of growing concern in the packaging field that the new regulation will put severe restrictions on packaging when the final provisions of the act—for clearance of all materials—goes into effect next year. ●

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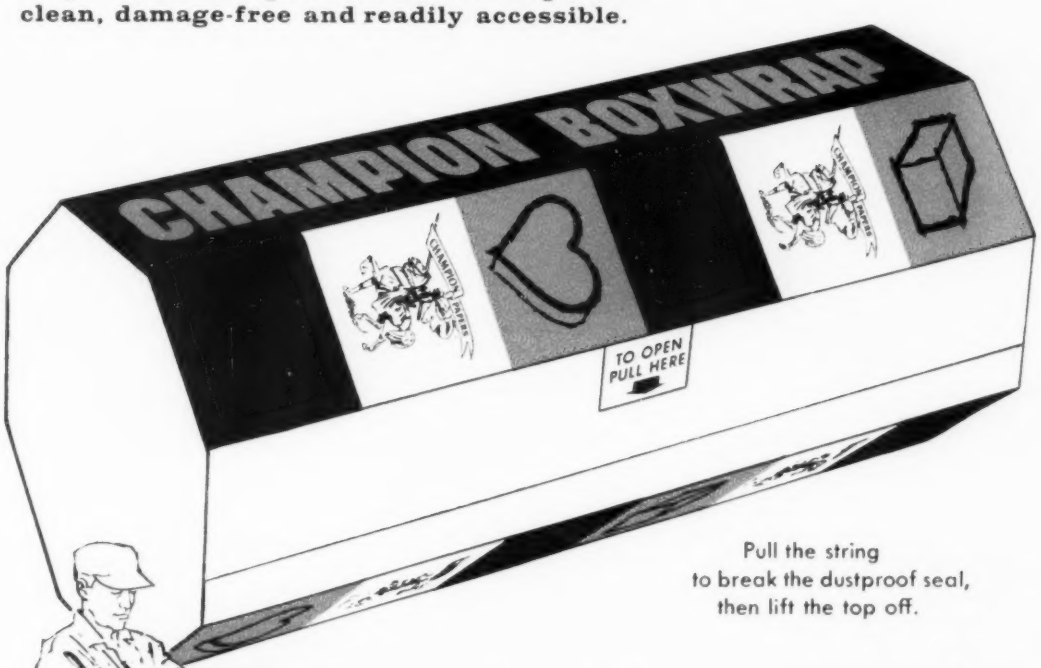

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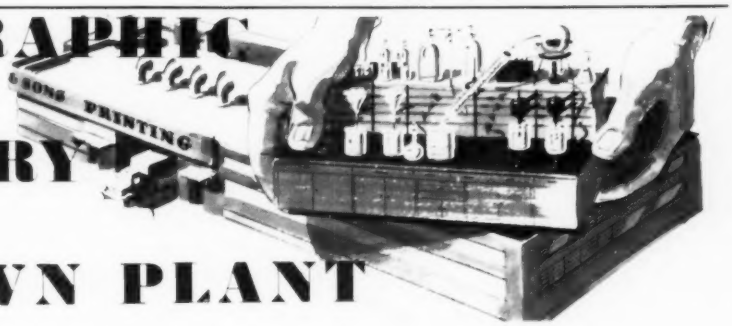

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Lower can prices

Contrary to most economic trends, prices for metal cans, particularly those most commonly used for processed fruits and vegetables, are going down again.*

Two major producers of metal cans—American Can Co. and Continental Can Co.—almost simultaneously announced price adjustments in the past month that reflect one or both of two competitive pressures—an intra-industry price war, or the threat of self manufacture of cans by users.

On top of January price cuts estimated to save its customers more than $9,000,000 in 1959, Canco has now announced new prices involving reductions from $1.40 to $2.58 per thousand, depending on the size and style of can. The earlier savings were based on the establishment of separate f.o.b. prices for each style and type of can at each of American's 68 plants. However, the company simultaneously eliminated free delivery of cans, a practice previously in effect in some metropolitan areas.

Chief beneficiaries of the January price revision were expected to be customers located near the supplier's prime sources of tinplate. A major factor in both price moves was said to be Canco's completion of a $32 million tinplate processing program by which the company converts into can-making-size sheets the plate it has purchased in coil form from steel mills.

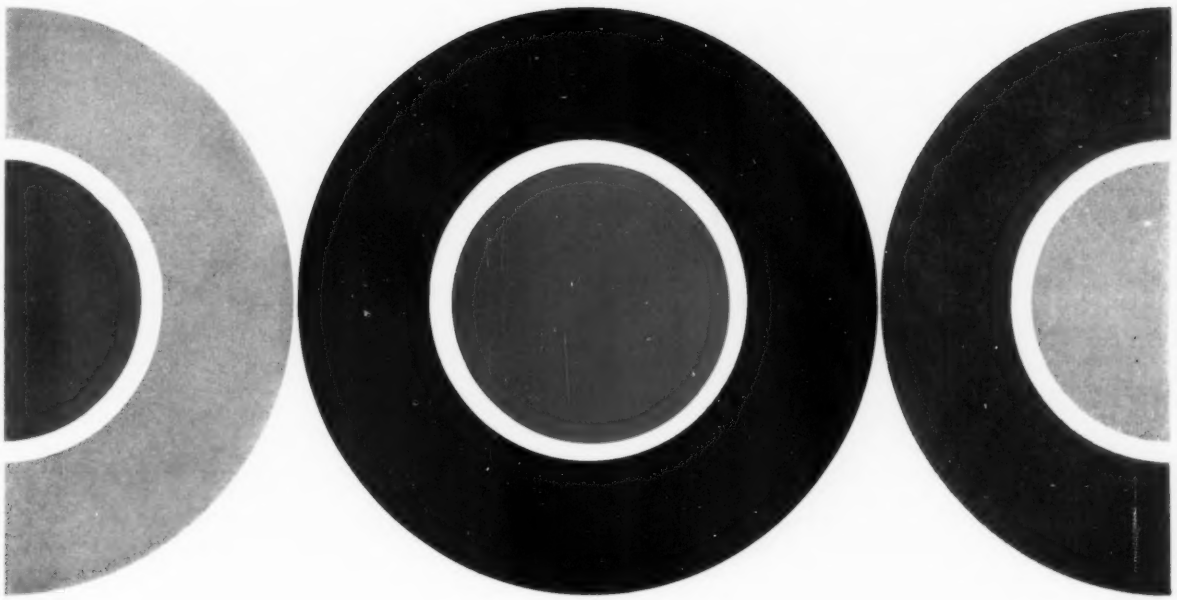
A significant objective of the latest price development was this point, emphasized by William C. Stolk, president:

"Protecting the company and its customers by making can prices competitive for those customers who want to buy containers from expert can makers rather than hazard the manufacture of their own cans."

In contrast, Continental's price announcement focused on competitive prices: "These reductions will keep Continental's customers fully competitive."

Canco attributed its move to technological advancement and other improvements in its can-making operations to a desire to share efficiency, benefits with the public and to help curb inflation. The company denied it would impair its earnings ability.

*See "New Pricing for Cans," MODERN PACKAGING, Feb., 1959, p. 174, and "Can Sales Outlook," MODERN PACKAGING, April, 1959, p. 277. ●



A Packaging Decision Can Change the Course of a Business

Looking for a new package design or packaging material? Olin Mathieson's Packaging Division is ready to work with you to create packages that ship better, sell better.

The Packaging Division manufactures Olin Cellophane and Olin Polyethylene, Frostkraft paper and paperboard, corrugated shipping containers, multiwall sacks, grocery bags and folding cartons. Also Ecusta cigarette paper, light-weight printing and specialty papers. Call in an Olin Mathieson representative today.

OLIN MATHIESON PACKAGING DIVISION

Olin Cellophane, N. Y. 21, N. Y. Frostkraft Products, West Monroe, La. Ecusta Papers, Pisgah Forest, N. C.

Olin Cellophane · Frostkraft Packages · Ecusta

Classified Advertisements

Employment
Business Opportunities
Used or Resale Equipment

Machinery and Equipment For Sale

MACHINERY FOR SALE—Potevin cellophane bag machine, glue seal, #111-S, excellent condition, without electric eye, elliptical lip bags. Range 2 x 10½ and 7½ x 16½. May be seen in operation. Price, $10,500. Reply Box 1069, Modern Packaging.

FOR SALE—Liquidation of Used Machinery Inventory. Biner-Ellison Labelmatic, Filabelmatic, World Labelers, Ermold Labelers, many other machines. Package Machinery Exchange Inc., 24-15, 45th Street, Long Island City 3, N. Y., Yellowstone 2-1366.

FOR SALE—USED 12-line Straight Line Model SL 55 "Geyer" Heavy Duty Pistol Filler for any semi-liquid or semi-solid product. Will handle cans or glass containers. Range of sizes: 4 fluid oz. to 16 fluid oz. Speeds: 180 to 220 containers per minute. With or without separate motor driven agitator. Reasonably priced. Reply Box 1061, Modern Packaging.

FOR SALE—TIN PRINTING PRESS. Mann (England) rotation press, built 1948. Type D.D.T.H., complete with Dexter folder, feeder. Mann (England) rotation Press, built 1951. Type D.D.T.L., complete with Bell, Giddens-Co. feeder. Both presses complete with electrical installation. For further details please write to Box 1068, Modern Packaging.

FOR SALE—MODEL 4 SIMPLEX BAG machine, Serial No. 1943, maximum width, 12", maximum length, 20". Fold-over bottom, also crimp bottom attachment, wall sealer, double roll stand and parts for imprinter labeler attachment. Dietz electric eye and extra plates. Price, $2,000. Modern Packaging Co., Mt. Holly, N.J.

MODERN PACKAGING AND FOOD PROCESSING MACHINERY AT GREAT SAVINGS—Pneumatic Scale Automatic Carton Feeder, wax liners, bottom sealers and top sealing units with interconnecting conveyors. Pneumatic Scale Tite Wrap Machine and Large Liner. Transwrap machines. Jones Model CMV highly flexible automatic cartoner. Scandia Model SFS6F high speed automatic wrappers with electric eyes. Ceco Model A3901-12 Cartoning Machine with compression unit. Hayssen Wrappers, all sizes. Package Machinery Model FF Frozen Food Wrappers. Package Machinery Models FA, FA2, FA3 and FA4 Wrappers with and without electric eyes. Battle Creek Model 47B Wrapper. 2-Package Machinery Model PA (Palmer) machines. Complete details and prices available on request. Union Standard Equipment Company, 318 Lafayette Street, New York 12, N.Y. Phone: CAnal 6-5334.

FOR SALE—ROTO WRAP MODEL "B" packaging machine with 2½" x 6 ft. infeed conveyor. Has photo register, hole punch and printing attachments. Excellent condition. Sterling Plastics Co., 1140 Commerce Ave., Union, New Jersey.

FOR SALE: Two (2) Package Machinery model FA3 cello overwrap machines in good operating condition. Call Mr. Ferrar of Royal Lace Paper Division, Standard Packaging Corp., Brooklyn, New York. Phone: TR 5-4930.

Machinery Wanted

WANTED—FOUR-COLOR FLEXOGRAPHIC press under five years old for printing cellophane, preferably 26" x 32". Repeat min. 10" plate cylinders, drying equipment and flying splice, but will consider others. Send drawing or photograph. Also four Simplex bag machines with electric eyes. Give all information in first letter. Cash buyers. Reply Box 1074, Modern Packaging.

Help Wanted

COMPANY IN WESTERN GERMANY—Supplying printed cellophane paper in rolls, cellophane paper bags and tear tape is looking for representatives or importers in United States and other countries. Write to Box 1062, Modern Packaging.

FLEXIBLE PACKAGING SALESMAN—Printer and converter of cellophane and polyethylene located in New York City has opening for experienced man. We are offering an established territory in Philadelphia and Eastern Pennsylvania which offers an excellent opportunity for right man with following and know-how. Replys held in strict confidence. Box 1063, Modern Packaging.

SALESMEN (Folding Cartons)
Excellent growth opportunity for proven salesmen to sell folding cartons in the Midwest. New territories with substantial established accounts. Acceptable applicants must have a minimum of five years successful folding carton sales experience. Attractive salary plus incentive bonus plan, with car furnished. Submit detailed resume in confidence to (B. B. Broach, Sales Manager), Bradley-Gilbert-Gebhart Division, Standard Packaging Corporation, 640-7th St., Louisville, Kentucky.

FLEXIBLE PACKAGING SALESMAN for California territory. Eastern converter of extrusion laminations—cellophane/poly; Mylar/poly; paper poly/foil poly printed and plain roll stock, and pouches requires commission salesman, having allied lines, to sell converters and end users. Reply Box 1064, Modern Packaging.

PACKAGING PERSONNEL
Positions Filled and Secured. A confidential Nationwide Service for employers seeking personnel and individuals seeking new positions. Inquiries invited. Reply to Graphic Arts Employment Service, Est. 1942. Helen M. Winters, Manager; Dept. PAC-5, 307 East 4th Street, Cincinnati 2, Ohio. Phone CHerry 1-2202.

EASTERN SALES MANAGER—FOLDING BOX Manufacturer. Well established, reputable multiplant firm with top rating needs regional manager to supervise sales activities and coordinate continued growth in Middle Atlantic States. Experience in industry essential with particular emphasis on estimating and pricing procedures. Prefer college background and some supervisory experience. Should have capacity to assume still greater responsibility within a reasonable period of time. Age 38-45. Generous base salary, plus profit sharing and fringe benefits. All replies held in strict confidence. Address correspondence and resume to Box 1066, Modern Packaging.

PACKAGE ENGINEER—CAREER OPPORTUNITY with large, national retail organization. Need top-notch man with potential for future growth and development. Training in engineering or physics desirable. About eight years experience in packaging required with specialized knowledge of packaging machinery, manufacturing methods, materials and specifications, with emphasis on package utility, cost reduction and appearance. Must be able to set up and evaluate test data. Need sense of merchandising, ability to recommend new packages and package improvements. Ability to work with and sell ideas to middle and top-management men important. Starting salary to $12,000, depending on experience. Potential upwards of $25,000. Reply Box 1060, Modern Packaging.

BRIGHT FUTURE WITH RAPIDLY EXPANDING New Jersey manufacturer of molded polyethylene packaging components. Position available as assistant to sales executive. If you are a college graduate, 28 years or younger, creative, with ability in sales correspondence, state experience and salary required to Box 1071, Modern Packaging. Replies held in confidence.

POLYETHYLENE BAG SALESMEN—If the plant you now represent cannot deliver your customers' needs—then look into this progressive flexible packaging set-up. Facilities include side-weld and tubular bags—light to heavy gauges—plain and flexographic printing, 1 to 4 colors. Here's a plant doing a nation-wide business offering you top-flight cooperation, quality, service and price. Side line or full time salesmen considered on straight commission. Strictest confidence assured. Reply Box 1073, Modern Packaging.

Situations Wanted

MANUFACTURERS REPRESENTATIVE—25 years experience in package sales and engineering. Interested in lines for the Chicago area. Send reply to Box 1067, Modern Packaging.

PACKAGING ENGINEER—B.S. DEGREE. Ten years diversified experience, military, commercial, electronics, food, corrugated. Thoroughly familiar with package and materials testing. Sales engineering and materials handling experience. Technical articles published. Currently located in Metropolitan New York area. Will relocate. Interested in position with management responsibility. Reply Box 1072, Modern Packaging.

Miscellaneous

EUROPEAN MANUFACTURER of quality self-adhesive tapes e.g., cellulose and vinyl wants to contact companies all over the world interested in selling tapes. Special wishes re lengths, widths and put-up are attended to. Manufacturing licenses are also available in some countries. Reply Box 1070, Modern Packaging.

RATES FOR CLASSIFIED ADVERTISING

ALL CLASSIFIED ADVERTISEMENTS PAYABLE IN ADVANCE OF PUBLICATION

Closing date: 26th of second preceding month, e.g., May 26th for July issue

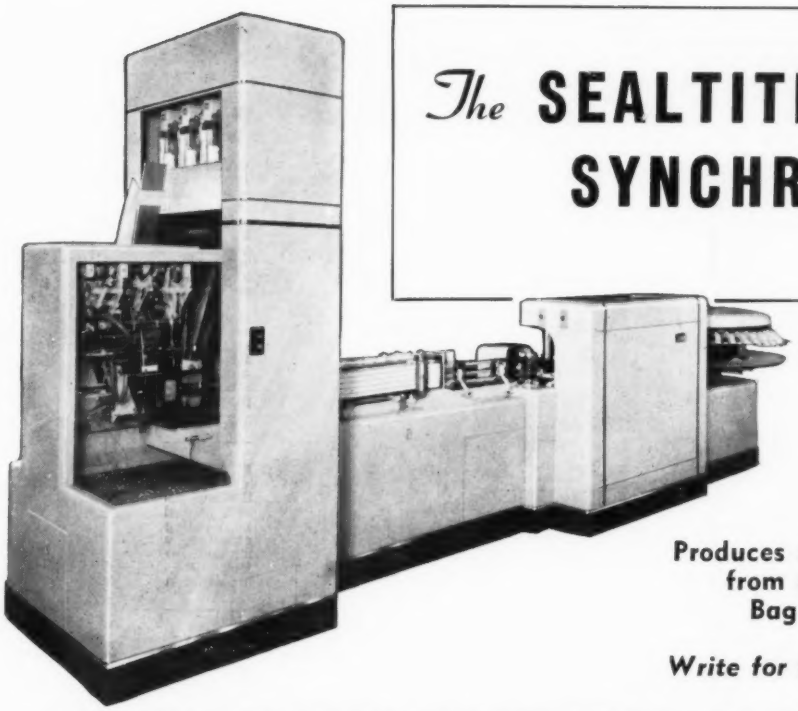
Per inch (or fraction) ..... $30.00. Each 3 inches or fraction (boxed) $15.00 extra.

Situation Wanted ads ..... 1/3 of above rates.

For purpose of establishing rate, figure approximately 50-55 words per inch.

Address all communications to Classified Advertising Department,
Modern Packaging, 575 Madison Avenue, N. Y. 22, N. Y.

Modern Packaging reserves the right to accept, reject or censor classified copy



The SEALTITE SYNCHROMATIC

Produces a BETTER PACKAGE from a Standard Paper Bag at Big Savings

Write for Complete Information

CONSOLIDATED PACKAGING MACHINERY CORP.

BUFFALO 13, N.Y.

REDUCE HANDLING *Costs*

Keep Production Flowing Smoothly with *Styl-O-Matic*® Bottle Conveyors

THE REX CHAIN #815 CONVEYORS

carries bottles, jars, cans and other containers in a single file through various stages of a production line. No jerking, no rough or high spots to cause spilling or breakage. Steel or stainless steel . . . any length required . . . 3 chain widths . . . it is ideally suited for every producer of canned and bottled products.

2 types of nylon top chains, corner brackets with discs or transfer discs are available for the Rex Units . . . 3 type Power Units available for Rex or Lateral Curve Units . . . leg supports available with standard pedestal base or sanitary tripod base.

THE LATERAL CURVE CONVEYOR

permits a production line to move straight, around curves and up or down normal inclines or declines. Only one Power Unit is required and transfer discs are not required at curves . . . steel or stainless steel . . . any length required . . . supplied with or without pack-off tables.

Please mail coupon for detailed information

ISLAND EQUIPMENT CORP. Dept. MP-5

P. O. Box 380276 — Miami 38, Florida

Please send information on the following:

- ☐ Rex Chain #815 Conveyor
- ☐ Lateral Curve Conveyor
- ☐ Other Conveyors

Company _____

By _____

Address _____

City _____ State _____

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MODERN PACKAGING

A BRESKIN PUBLICATION

Published by Modern Packaging Corp., 575 Madison Avenue, New York 22, N.Y.

With Bernardin • Quality is a **SERIES** of satisfactions

THE PRINTING PROCESS

Pictured here, a Bernardin foreman makes the final of a series of critical inspections that provide for the appearance and uniform attractiveness of each Bernardin closure.

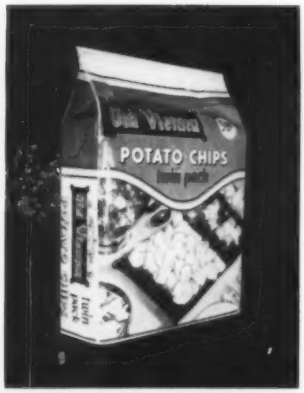
At this, the final of several metal coating inspections, skilled workmanship is reflected in sharp, clean-cut definitions of design and lettering, with true, lustrous colors so appealing to the eye.

In this way Bernardin through positive controls at each of the many manufacturing steps between sheet steel or basic plastics and the final, handsome closure; insures the validity of "With Bernardin—Quality is a *Series* of Satisfactions."

QUALITY METAL AND PLASTIC CLOSURES BY

BERNARDIN

Bernardin Bottle Cap Co., Evansville, Ind.



Award-Winning Flexible Packaging
Produced by Dixie Wax Paper Company,
Printed on Champlain Equipment.

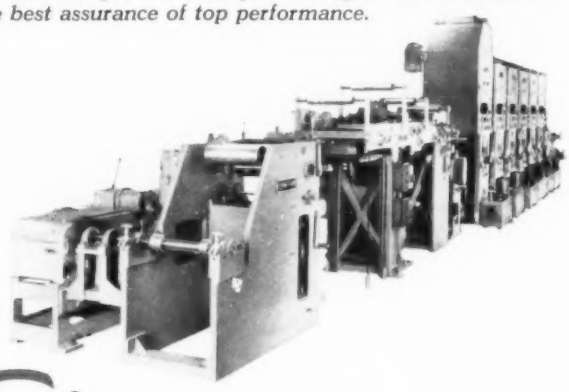
Once again...

Champlain Equipment Helps Produce

Award Winning Packages...

In the Third Annual Flexible Packaging Competition, Champlain has again been a member of the team which produced Award-Winning Packages. Some are illustrated here. In fact, 16 of the 23 Award Winners in this national competition were printed by companies who have Champlain rotogravure presses. This kind of achievement is typical of Champlain equipment. For example, in the 1958 Carton Competition of the Folding Box Association, packages printed on Champlain presses scored impressively.

In today's highly competitive field of mass merchandising, the appeal of a product's package is often the bridge between shelf and shopping bag. Where fine printed results and operating economy are required – on a wide variety of packaging materials – *a performance-proved Champlain rotogravure installation is the best assurance of top performance.*



Champlain

Champlain Company, Inc., Harrison Avenue, Roseland, N
Chicago Office: 7356 N. Cicero Avenue, Chicago 46, I
In Europe: Bobst-Champlain, Prilly-Lausanne, Switzerla

1589

*The Point of Pay-Off!**

Point-of-purchase for the product is point-of-pay-off for the package.

A successful package is a combination of good carton design, brilliant color, excellent reproduction and a clean, bright boxboard stock — in short, sheer quality!

Sheer quality is a Michigan Carton standard — from design to delivery. MCC is independently owned — independently managed; large enough to serve you well, small enough to serve you personally!

* **MCC customers experience the pay-off every day— as America reaches for Michigan Cartons.**

MCC

MICHIGAN CARTON COMPANY

Battle Creek, Michigan

. . . on metal

With metal you can decorate every inch of package surface . . . in any color combination imaginable. Nothing can replace the good impression metal makes. Continental's experience in metal decoration is both wide and deep. The artistry of our craftsman is unexcelled. Let us show you what we can do for your product line.

CONTINENTAL CAN COMPANY

Eastern Division: 100 E. 42nd St., New York 17
Central Division: 135 So. La Salle St., Chicago 3
Pacific Division: Russ Building, San Francisco 4
Canadian Division: 5595 Pare St., Montreal, Que.